MK7227 Postgraduate Dissertation

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Factors influencing consumers' online purchase behaviour of skin care

A dissertation submitted in partial fulfilment of the requirements of the Royal Docks Business School, University of East London for the degree of **International Marketing Management**

May 2015

15379
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Dedication

I would like to dedicate this dissertation to my dear friend Darren Williams, who sadly passed away during this project. You are always missed, this one is for you.

3rd October 1978 – 21st February 2015

Acknowledgements

Firstly, I would like to give my greatest thanks to my family for supporting me through this degree in order to achieve my goals and aspirations, and allowed me to do so with the greatest of ease.

A special thanks to my partner, who kept me sane through the days I thought my degree would never end, for always believing in me, and for bearing the brunt of my misery through the hardest times. You are awesome!

Lastly but by no means least, for the support of my tutor, Ayantunji Gbadamosi, whose positivity and kind nature gave me confidence through all stages of this project.

Abstract

Purpose – The purpose of this paper is investigating which factors influence consumers' purchase behaviour of skin care online, and what impact online trust has on mitigating the effects of risk normally associated with shopping online. The study explores industry specific variables and their effects on online consumer behaviour. The study also aims to explore what motivates consumers to purchase skin care online.

Design/methodology/approach – The research design is exploratory in nature following a positivist approach, using statistical methods to examine data. The scale used was constructed by the author using themes present in the literature describing consumer behaviour online. The scale was confirmed suitable by testing its internal validity. A questionnaire was formed and administered online via Facebook. An exploratory factor analysis was carried out to construct the underlying themes present in consumer behaviour when purchasing skin care online.

Findings – The findings confirm that trust is an essential component for influencing consumer behaviour when purchasing skin care online. The six factors observed in the research were quality of service, website safety, Intangibility, Brand reputation, website interactivity and shopping motivations. Where there is increased risk shopping online, consumers will respond to a website well, when measures are put in place to ease risks, such as security policies and a well-designed web environment.

Research limitations/implications – The exploratory nature of the research mean that the factors extracted from the data can be explored further in relation to the skin care market. There are still concepts regarding different demographic segments that can also be explored in relation to this research. Further studies following more stringent and reliable testing may be needed to fully verify results.

Practical implications – The results show interesting implications for online vendors, who should explore interactivity online as a means to mitigating risk.

Originality/Value – This study explored the factors influencing consumers purchase behaviour of skin care, which to the researcher's knowledge is an area that has not been covered by existing literature. The paper lays the groundwork for further examination of the themes that emerged from this research.

Keywords – Skincare, consumer behaviour, purchase, intention, trust, risk, online

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1. General Introduction

1.1 Introduction

E-commerce has grown massively in importance over the last 10 years, becoming an essential business platform for distribution, trading and selling products between business' and consumers' '(Barnes and Vidgen, 2000). Hence, online consumer behaviour is growing as an area of research, popular among academics and practitioners attempting to develop basic frameworks linking information search and purchase intention (Vazquez and Xu, 2008). The interest in research in this area has also lead to academics examining trust as an important variable in a successful online business (Salo and Karjaluoto, 2007) and maintaining long term customer relationships (Ganesan, 1994). This paper attempts to explore which factors affect a consumer's purchase behaviour when specifically buying skin care online.

1.2 Background of study

"Since consumers may be apprehensive about buying something they cannot see, touch or feel, trust is a key to overcome the barriers of internet shopping" (Shek et al., 2003).

Online shopping continues to grow as a phenomenon with consumers from all over the globe using the web to purchase goods and services and browse online (Demangeot and Broderick, 2007). E-commerce is the quickest evolving retail market in Europe according to Retail Research (2014) with UK shoppers having spent £91bn online in 2013 (Rigby, 2014). Researchers have identified that in order to foster a strong business to consumer (B2C) relationship in e-commerce, the company needs to mitigate the lack of consumer confidence (Yoon, 2002: Ha, 2004) and build trust (Koufaris and Hampton-Sosa, 2004).

Trust has been identified in previous studies by academics as a key indicator for effective online transactions (Bart et al., 2005). Ganesan (1994) built upon the notion that trust is essential for building consumer activity. By creating trust it encourages attitudes about the firm's previous behaviours, in turn eliminating uncertainty and perceived risks faced in most online transactions (McKnight and Chervany, 2001; Pavlou, 2003). In addition, the greater degree of trust the consumer has, the higher the level of purchase intention (Gefen and Straub, 2004) supported by CommerceNet's (1999) report stating that trust is one of the main barriers to e-commerce.

Researchers have examined that shopping online carries more risk than that of the brick and mortar setting (Martin and Camarero, 2008) where consumers are less likely to trust the online vendor. Some of the main risks faced by the consumer when making a purchase online is the lack of one to one contact with a sales assistant, generation of anxiety by consumers who are unfamiliar with how to use the website, the absence of interaction and the security of payment and personal information (Martin and Camarero, 2008). Furthermore, researchers have also identified that the lack of tangible cues when shopping online can have a strong impact on

consumers decision making (Laroche et al., 2001). This is consistent with the literature that examines intangibility as a basis for the difficulty in decision making at time of online purchase and a major indication of increased perceived risk (Murrarh & Schlacter, 1990). Therefore, in order to mitigate consumers risk, vendors will often try and increase the consumers trust by sending out signals about the brand, relating to its reputation, making sure the brick and mortar experience is desirable, quality of service received offline and online; and also through previous positive encounters with the brand.

1.3 Statement of problem

The role of mitigating risk and increasing trust in e-commerce is heightened in importance compared to the brick and mortar stores, since consumers are not dealing directly with the staff or the company (Papadopoulou et al., 2001). Trust has been categorised by ambiguity, vulnerability and dependency (Bradach and Eccles, 1989) which are reflected in the online purchase where the consumers are unable to interact with the seller face to face, they cannot tangibly examine the products or immediately collect the products upon purchase (Corbitt et al., 2003).

A berth of literature is present regarding the relationship between the roles of risk and trust and purchase behaviour variables (Vazquez and Xu, 2008; Martin and Camarero; 2008; Corbitt et al., 2003; Kim et al., 2008; Chen and Barnes, 2007). However, what is noticeable among the literature is the lack of evidence supporting the purchasing behaviour of consumers regarding skin care online. Purchasing skin care in a brick and mortar setting will often provide consumers with an interactive, personal experience. The sales assistant is often able to provide the customer with a detailed analysis of their needs recommending products based on those factors; or the consumer can browse at their own pleasure, feeling, testing and smelling the products on offer. Furthermore, what is known to be true about the online shopping setting is the lack of tangible cues associated with this type of purchase and the role it plays in evaluation difficulty and perceived risk (Laroche et al., 2005).

Various research on consumer behaviour online, has evaluated how the lack of tangible cues can be mitigated by generating trust by sending signals including: the firm's competency (Balasubramanian et al., 2003; Koufaris and Hampton-Sosa, 2004) including features like company size and good reputation, service quality, warranty offers and increased web security (Warrington et al., 2000) and variables such as the web design and interactivity (Bramall et al., 2004; Gummerus et al., 2004). Moreover, due to the intimate and tangible nature of skin care, with products varying in texture, smell, feel and function, the importance of providing a risk free online environment is paramount for this industry. Therefore, emerging from the awareness that little research has been conducted on consumers purchase behaviour regarding skin care products online and how the lack of tangible cues may increase consumers risk, this paper aims to identify what the key factors are that influence a consumer to buy

their skin care online, using variables present in existing literature, and to examine if the risks can be mitigated through increasing trust.

1.4 Research objectives

The research aims to explore the factors affecting purchase intention of skin care from a consumer behaviour perspective. The objectives of this study are primarily to:

A. Evaluate the variables affecting consumer behaviour in the context of buying skin care online, based on previous literature regarding perceived risk and online trust,

B. Explore the motivating factors that can encourage a consumers' intention to purchase their skin care online, giving critical insight into how the e-vendor can use these factors to encourage consumers to purchase online.

C. Investigate the lack of tangible cues and the effects it has on online consumer behaviour when purchasing skin care.

1.5 Research questions

1. How does trust in the brand increase the consumers' intention to purchase cosmetics online?

2. How does the lack of tangible cues affect consumers' perceived risk when buying cosmetics online?

3. What are the key motivators for consumers' purchase decisions for cosmetics online?

1.6 Overview of methodology

The research being conducted for this paper was exploratory in nature in the sense that online consumer behaviour when purchasing skin care specifically, is a new research area. For the purpose of this paper, a positivist approach has been followed, since the methods being monitored for this research aim to test proposed theories and provide the development of laws for future research (Bryman, 2012). A non-probability approach for this research was used, combining convenience sampling and snow ball sampling (Malhotra and Dash, 2013). Furthermore, 508 members of the social media network Facebook were randomly selected as a sample and invited to take part in the online survey via Facebook messenger, and wall posts. The snowballing sampling technique was administered in which the initial group of respondents selected randomly, referred the survey details onto other participants, and so on and so forth.

1.7 Significance of the study

The significance of this study attempts to explore the relationship between the effects of online trust and consumer's perceived risk when shopping online and how this will affect the intention to purchase skin care online. As there is a berth of previous literature regarding the

effect of trust and perceived risk on online consumer behaviour, this paper will be identifying, using former research evaluations, how it affects the purchase of skin care more specifically, as there is a lack of research within this industry market. The paper will explore the variables which affect consumers' behaviour and to what extent it affects their intention to purchase skin care online, uncovering ways in which e-vendors can mitigate negative perceptions of online shopping.

1.8 Limitations of study

While conducting the research for this study, restrictions and deficiencies were recognised. Firstly, the time frame for the execution of research proved to be one of the major limitations in the study, due to the sample size of participants generated from the online survey. The small number of respondents resulted in decreased accuracy of overall findings with some areas needing more conclusive evidence to support the theories suggested. Secondly, the research philosophy only allowed for statistical representation of the data, where in depth and perhaps insightful opinions on the topic were not examined.

1.9 Summary

This importance of the study of online consumer behaviour has grown in significance due to the growth and increasing numbers of consumers using the web to purchase goods and services, gather information or browse for pleasure (Demangeot and Broderick, 2007). While consumer online behaviour has been widely documented, and trust has been identified in previous studies by academics as a key indicator for successful online transactions (Bart et al., 2005), research in relation to purchase behaviour of skin care has not yet been examined. By nature shopping for skin care can be an intimate experience and there has been various research on how the lack of tangible cues can be mitigated by generating trust by sending signals including: the firm's competency (Balasubramanian et al., 2003; Koufaris and Hampton-Sosa, 2004). This research has aimed to understand what factors influence consumers' online behaviour when purchasing skincare.

2. Literature Review

2.1 Overview

The research for this paper is based on the theoretical constructs and previous research. The main themes of this chapter have explored online retailing and defining the skin care market, important for understanding the segment of research this paper is looking at. Furthermore, online consumer behaviour has been explored regarding areas including: the motivational factors that influence consumers' online purchase behaviour; the effect of cognitive and experiential signals online and their effect on purchase behaviour, and how these can be used to increase trust. Finally, the concept of perceived risk, due to the intangible nature of shopping online, and how this affects purchase behaviour has been addressed. These subject matters are crucial for understanding the framework of this research, and to address the research questions and objectives.

2.2 Skin care and online retailing

The online shopping environment is growing, with increasing numbers of consumers using the web to purchase goods and services, gather information or browse for pleasure (Demangeot and Broderick, 2007). E-commerce is the fastest growing retail market in Europe according to Retail Research (2014) with UK shoppers having spent £91bn online in 2013 (Rigby, 2014). Items available to purchase online range from fashion goods, grocery items, fitness and leisure items and cosmetics. In relation to the research questions I have proposed for this study, the skin care market and theories relating to purchasing skin care online, will be looked at further using relevant literature.

A recent publication from Walker Sands Communications (2014) looking at the trend of what consumers are purchasing online shows that the most popular items bought, are consumer electronics, books, and clothing and apparel. Another similar piece of research conducted by the Business Insider (2013) shows that less than 30% of US consumers would purchase "Personal care" items online. In relation to the research regarding the growth of the online retailing industry, the figures for people purchasing cosmetics & skin care online is still relatively low. This view is consistent with the lack of information regarding statistics relevant to buying skin care online, even though the majority of cosmetics brands selling skin care have an online retail website.

The cosmetics market is hugely segmented and includes the following: hair care, skin care, makeup and colour, perfumes and fragrances, oral hygiene, bath and shower, deodorants, men's toiletries, children and baby care, and sun care (Weber and Villebonne, 2002). The second leading segment, according to the most recent statistics available to this research, is skin care with 16% hold of market share (Euromonitor, 2001). This market share is largely due to the innovations and research efforts put into consumers need for younger and healthier looking skin (Weber and Villebonne, 2002). Euromonitor (2013) released a statistic showing

that the skin care market reached sales of £2.1 billion in 2013, growing 2% from 2012 even though the price of skin care is rising, and set to continue.

Extensive reviewing of the literature shows that there is a lack of sufficient documentation examining the reasons consumers are opting for or against buying skin care products online, and a lack of literature specifically looking at online purchase behaviour within the skin care and cosmetics field. By examining previous literature relating to the risk associated with online shopping and the motivations consumers have to shop online, a more detailed analysis can be formed as to the main reasons why consumers will or won't purchase online. Examining the literature will help form conclusions in order to establish relevant questions to put forward for the research methodology.

2.3 Reasons to shop online & Motivations for purchase

The main reason for consumers to shop, is to purchase a product or service, steered by factors such as availability, quality and choice of products. Research has suggested that once online, you are more likely to find the product you want and have more variety to choose from (Rajamma et al., 2007).

Previous studies have examined, that clearly identifying the motivating factors for consumers shopping online can help marketers' decide on strategies as well as the design of the website (Wolfinbarger and Gilly, 2001). Online shoppers have been identified to be more likely to maximise benefits of shopping online and minimise their risks, which are both crucial roles in understanding different consumers shopping behaviours, and predicting their intentions to shop online (Forsythe et al., 2006). Consumers shopping online will therefore, engage in maximising the perceived significance of their shopping involvement by evaluating the trade-off between the benefits and the perceived risks connected with purchasing online (Forsythe et al., 2006).

There are several motivations for selecting online shopping vs brick and mortar shopping, which has been examined in previous literature (Bellenger and Korgaonkar, 1980; Rohm and Swaminathan, 2004; Babin et al., 2003). The three advantages that have been identified in the literature for shopping online are: Attractive prices, convenience of shopping and the ability to do comparison shopping (Burke, 2002; Evanschitzky et al., 2004). Further empirical research (Walker Sands Communications, 2014) documented that consumers would be more likely to purchase products online if they were offered: Free shipping, 1 Day shipping, free returns and exchanged, easier online returns, more confidence in payment and security etc. The shopping motivations being looked at in this research are; the convenience related motivations of shopping online; the enjoyment consumers have when purchasing products and price and variety motivations that may influence consumers purchase intention.

2.3.1 Shopping convenience

Literature has also determined that convenience is a factor that influences consumers to choose a specific retail type (Evanschnitzky et al., 2004, Hoffman and Novak, 1996). In addition, the literature (Swaminathan et al., 1999) identifies that convenience in online shopping is an important motivating factor, as location of the store becomes irrelevant. This means that a consumer is able to purchase items from the home or office at any point in the day without having to worry about making a trip to the store. Past research has confirmed that consumer's value saving time and effort while shopping, and this plays a major part in the convenience motivation of shopping online (Bellenger and Korgaonkar, 1980; Eastlick and Feinberg, 1999).

2.3.2 Enjoyment

The enjoyment of shopping has been well documented in past literature (Burke, 2002; Evanschitzky et al., 2004; Hoffman and Novak, 1996). Arguments have been presented, suggesting that while shopping may be fun in the traditional brick and mortar setting, the same enjoyment cannot be sought from shopping online (Arnold and Reynolds, 1997; Rohm and Swaminathan, 2004). However, a hedonic shopper will actively seek fun and amusement when shopping (Hirschman, 1980). The hedonic motivation in an online shopping context links in with the Technology acceptance model (described in more detail below) where the enjoyment contrusct of shopping online has recently been added (Davis, 1992). Experiential shopping can be related to the consumers need for surprise and and product involvement (Kim and Eastin, 2011).

2.3.3 Price & Variety seeking

It is well known within the literature that consumers will often shop around to get the best deal, as discovered by a Swedish survey, which indicated searching for a product was a more important aspect of internet behaviour than the actual purchase (Solomon et al., 2013). Consumers will often compare delivery costs, quality and discounts offered, by just clicking the button on a mouse (Alba et al., 1997; Shankar et al., 2003). Research conducted by Burke (2002) confirms that consumers want to know the prices sold online vs the nearest retail store to compare deals. Within the cosmetics industry, sampling and free gift with purchase, are common place in store and online. Literature has previously evaluated the effects of promotions as a motivation to shop in store (Gilbert and Jackaria, 2002; Chen et al., 1998), however there is lack of evidence in the recent literature to see if this is true for online within the skin care market. Are consumers persuaded to by online if there is a more tempting offer than in store? Consumers look to the internet to compare and contrast deals and product information, where the effect of product reviews in blogs and marketing elements deployed can positively impact on brand attitude (Chen et al., 2008.

2.4 Trust in consumer behaviour

2.4.1 Defining Trust in consumer behaviour

To date there is vast amounts of research documenting the importance of trust in relation to commerce. Phycologists along with philosophers have described the prominence of trust in developing and maintaining intimate relationships (Koehn, 1996). General Trust has been defined as the dependence someone has on the characteristics, abilities and dependability of a person, service or object (Kumar et al. 1995; Salo and Karjaluoto, 2007) or, as a person's confidence in the favoured expectations of the outcomes of what other people will do, based on previous experiences (Gefen, 2000).

Lee and Turban (2001) acknowledge that trusting relationships are not only created between people, but also between people and organisations, people and computing systems and people and vendors. Looking at the importance of the role of risk and trust when shopping online is crucial for understanding variables that affect purchase intention, which will be of great significance when looking at variables affecting consumers' online shopping behaviour of skin care online.

2.4.2 Online Trust in E-Commerce

There is a berth of literature and research more specifically related to trust within online retailing, (Gefen, 2000; Jarvenpaa and Tractinsky, 1999; Jarvenpaa et al., 2000; McKnight et al., 2002) signifying the importance for businesses to establish trust with their online consumers. Belanger et al. (2002), describes business to consumer (B2C) e-commerce as transactions completed between corporations and consumers, where the web is used to sell goods and services directly to the consumers (Chaffey, 2009). Managers over the years, have realised how beneficial e-commerce is to their companies (Salo and Karjaluoto, 2007). The idea of the importance of trust within buyer behaviour has been one that's been studied extensively in the offline world since the 1950's (Corritore and Wiedenbeck, 2005).

Some of the recent relevant literature by scholars in relation to e-commerce and internet marketing, cover issues including, source credibility (Yoon, 2002) risk perception, trust (Jarvenpaa and Tractinsky, 2000; Gefen and Straub, 2004) and the (TAM) Technology Acceptance Model (Davis, 1989).

In order for companies to successfully retail online, businesses must alleviate the lack of consumer confidence (Yoon, 2002; Ha, 2004). Researchers have provided evidence that the main reasons consumers choose not to purchase online is due to online security, reliabilities of company's and web site technology (Gefen, 2000). Therefore, the concept of trust is very important in uncertain situations including those found in e-commerce, and in building successful web-businesses (Ha, 2004; Hoffman et al., 1999). There is extensive agreement within the existing literature that trust is an essential component of good customer relationships online (Koufaris and Hampton-Sosa, 2004). Therefore, unlike in the traditional

business to consumer relationship setting, the main setting of an e-vendor will be its website (Gefen, et al,. 2003). According to Kimery and McCord (2002) the trust in an e-retailer is more specifically defined as the customers' disposition to accept vulnerability when part of an online transaction based on previous positive predictions regarding the future of the retailers' behaviours.

2.4.3 Firm Characteristics

The notion of trust creates positive attitudes about how the firm will perform in the future which will influence consumer loyalty towards the firm and also the consumers intentions to repurchase (Gefen, 2000; Yoon, 2002). Many researchers such as Koufaris & Hampton Sosa (2004) show the importance that internet trust has for websites to be successful in the online market place. As described by Yoon (2002) the fundamentals of online trust are security assurance, reputation, web searching, fulfilment, presentation, technology and positive interactions within the web. Similarly McKnight et al., (2002) suggested that there are three main influential factors relating to the emergence of a trusting relationship between an online company and the consumers, which are: safety of the online trading environment, company's good will and quality of the website.

2.4.3.1 Brand Reputation

If a company is trustworthy offline as well as online it is more likely a consumer will have trust within the online environment within this company and the company will have a better reputation (Figueiredo, 2000). Much of the literature present shows that a good brand reputation is a signal of a good product or service (Martin and Camarero, 2008; Doney and Cannon; 1997) which can be a strong influence of a consumers online trust and purchase intentions (Koufaris and Hampton-Sosa, 2004). Many consumers would agree that a larger company carries better capabilities of making sure their needs and wants are met (Jarvenpaa et al., 2000) and also, that the reputation provides assurance of quality and their ability to meet demands, thereby increasing trust (Ha, 2004; Park and Stoel, 2005).

Lau and Lee (1999) defined brand experience as a consumers past encounters with the brand, but more specifically in the area of usage, where it was found that a good consumer experience with the brand positively influences the consumers trust (Ha, 2004; Chen and Dhillon, 2003). Researchers elaborated on this theory to describe how the familiarity with a brand and positive past encounters, is a predictor for trust in online firms and the consumers intention to purchase (Bhattacherjee, 2002). Therefore, trust in e-commerce serves a crucial role in attracting consumers to shop online (Hoffman et al., 1999; Reichheld and Schefter, 2000). The familiarity a consumer has for a specific brand/online retailer reduces the uncertainty by forming a structure (Luhmann, 1979) which can reduce risk (Blackwell et al., 2001).

2.4.4 Web characteristics

Many characteristics of a websites qualities and functions have been identified in relevant literature, evaluating the features, based on the consumer's perspective to measure the online buying experience (Negash et al., 2003). A websites characteristics can be categorised into cognitive signals or experiential signals which may allow the buyer to trust the company's good will and competency (Martin and Camarero, 2008). Websites of a good quality can help gain competitive advantage over other firms and attract more customers (Barnes and Vidgen, 2000).

2.4.4.1 Security and Privacy (Cognitive)

Researchers have identified that security issues faced when shopping online, are among the major concerns consumers have affecting purchase intentions. It has been widely documented that privacy concerns on the internet, including spam, usage tracking and data collection are the main reasons documented, consumers worry about when faced with internet privacy (Wang et al., 1998). Creating a secure online website for consumers to purchase from, and providing privacy policies and security information forms better trusting relationships between brand and consumer (Martin and Camarero, 2008; Belanger et al., 2002) and risk will also decrease, with satisfaction increasing (Ha, 2004; Park and Kim, 2006). Research conducted by Burke (2002) shows that consumers like to have access to product specifications, usage instructions, warranty information and the full list of products currently on sale on the website.

2.4.4.2 Service quality (Cognitive)

Yoon (2002) explains that a website which commands large consumer awareness, will most likely influence trust and satisfaction, this is due to the majority of consumers believing that a well-known web site will have better capabilities to fulfil their needs (Jari and Heikki, 2007; Koufaris and Hampton-Sosa, 2004). Service quality is reflected in the company's capacity to offer a better service by offering a large variety of products, good quality and price relation, reliable delivery and product customization (Trocchia and Janda, 2003). This view strengthens the theory that consumers believe a larger firm is a signal of better quality and satisfaction. When a company is establishing an online presence, its Web page is regarded as the primary interface and meeting place of the business and the consumer (Kolesar and Galbraith, 2000) therefore its design and features are of a paramount importance (Bramall et al., 2004).

2.4.4.3 Website Design (Experiential)

Further empirical studies showed that the web design functions are strong predictors of a consumer's satisfaction (Lee and Lin, 2005; Wolfinbarger and Gilly, 2003). Researchers have addressed the fact that consumers prefer a clearly designed web page and appreciate simplicity when using an e-commerce website, as this reduces feelings of frustration and wasted time, ruling out elements of perceived risk (Wang and Emurian, 2005). Furthermore,

Srinivasan et al, (2002) describes how the quality of the website directly affects online loyalty, where the e-quality is linked to the Ease of Use and enjoyment of technology found in the technology acceptance model (Davis, 1989). The importance of a websites quality and design, means that marketers need to make sure they can assure their consumers they will obtain benefits such as time saved while shopping online vs traditional in store shopping (Harridge-March, 2006).

2.5 Perceived risk

Perceived risk has been defined as the uncertainty a consumer has within the purchasing environment, where they review all the possible outcomes and results associated with making the wrong purchase decisions (Gefen et al., 2002; Hunter el al., 2004). Many of these researchers have stressed the importance of the role of risk in consumer behaviour, especially in the contribution to understanding the information searching behaviour and purchase intention of consumers (Barnes et al., 2007; Mitchell 1999).

Misra and roa (2000) identified that when it comes to risk in e-commerce, there are three different types a consumer may face: financial risk, product risk and information risk (security) and that statistically internet shopping is deemed more risky than shopping in store (Riegelsberger et al., 2003). The heighten risk shopping online poses, can be due to the lack of visual and tangible cues, missing quality information, security and privacy issues and the absence of face to face interaction with sales staff (Laroche et al., 2005). Purchasing cosmetics can be an intimate experience, involving choosing specific products relating to the needs of the individual consumer, often at the hands of a skilled sales assistant. What isn't yet clear about purchasing skincare online, is the lack of interaction with trained sales staff and how this affects consumers risk when buying products online for the first time.

Literature hypothesises that the perceived risk associated with consuming online goods can be reduced by increasing trust (Pavlou, 2003; Koufaris and Hampton-Sosa, 2004). The purchase intentions and the role of risk in consumer online behaviour can also be described in part by the Technology Acceptance model proposed by Davis (1989).

2.5.1 Technology Acceptance Model (TAM)

The TAM is constructed against three positive variables: Perceived usefulness, perceived ease of use & enjoyment of technology (revisions of the TAM by Gefen (2003) saw the addition of the third variable, Enjoyment of technology). Researchers have used this model to study consumer's attitudes towards e-commerce (Gefen et al., 2003). The first variable, Perceived usefulness is defined by Davis (1989) as:

"…the degree to which a person believes that using a particular system would enhance their performance"

The second variable, perceived ease of use is defined by Davis (1989) as:

"…the degree to which a person believes that using a particular system would be free of effort"

The third variable, enjoyment of technology is regarded as the consumer's motivation to do transactions online (Chen and Barnes, 2007).

Therefore, the perception of usefulness, ease of use and the enjoyment of technology are positive variables in the sense that they positively impact on consumers' online trust reducing the associated risk (Chen and Barnes, 2007). Pavlous' research (2003) also found that trust can influence a consumers' perceived risk, perceived usefulness and perceived ease of use when going through the different stages of an online transaction. The model was further elaborated by Salam et al., (2005) combining trust into the TAM, which concluded there are two key outside causes that influence the consumers' intention to purchase from and visit the e-vendors site. The first cause is previous interactions with a website, which can form their opinions and beliefs of perceived usefulness and perceived ease of use. The second cause is the trusting beliefs formed by external factors, influencing behavioural intentions online.

2.5.2 Intangibility online and its affects

Omar (1999) put emphasis on the importance of the store environment in relation to retail marketing and the success of the store and its longevity. It is the stimuli within the store such as, salespeople, store layout, noises, smells and merchandise that influences the consumers purchasing behaviour (Lovelock, 2010). Researchers have therefore suggested that the brick and mortar outlets are perceived to be more tangible than online stores, due to the fact they have a physical location and carry all the attached sensory cues (Rajamma et al., 2007). As far as the consumer is aware, an online retailer may not have a physical location, the interaction is only virtual without any tangible cues (Evanschitzky et al., 2003). Researchers have therefore hypothesised that online shopping is intangible. Intangibility has been described by Kotler and Bloom (1984) as:

"What cannot be seen, tasted, felt, heard or smelled."

Much of the literature present has examined the effect that the lack of tangible senses has on purchase intention (Laroche et al., 2001) however there are gaps in the literature when it comes to purchasing skincare online. The study of intangibility has led to definite conclusions regarding purchase intention of the consumer including: heightened evaluation difficulty (McDougall, 1987) higher perceived processing effort (McDougall, 1987) and higher perceived risk (DeRuyter et al., 2001). The positive correlation between intangibility and perceived risk supports the research findings that purchasing goods and services online is more risky than in store (Laroche et al., 2005) where consumers like to feel and touch their goods before a final decision purchase is made (Rajamma et al., 2007).

When consumers shop online they are prone to feeling uncertain, vulnerable and dependant, this is due to not being able to see the seller face to face, physically examine the merchandise

or immediately collect the merchandise upon sale (Corbitt et al., 2003). The belief that the consumer will receive their products on time and receive products of the right quality, is down to the belief that the merchant is competent and trust worthy. In a traditional brick and mortar store, the consumer is able to try products and feel them before purchasing eliminating a lot of the risk associated with shopping online (Kim et al., 2008). A consumer purchasing cosmetics online may be able to go on previous experience with a product, however consumers may be purchasing a product they have never tried before. The literature has not yet specifically examined how a brand can mitigate these feelings of uncertainty and risk, due to the lack of intangible cues, within this field.

2.6 Summary

The literature has identified and analysed the variables that affect consumers' online shopping behaviour. The underlying themes in the past literature describe how trust is a key indicator for successful online transactions (Bart et al., 2005). By creating trust it encourages attitudes about the firm's previous behaviours, in turn eliminating uncertainty and perceived risks faced in most online transactions (McKnight and Chervany, 2001; Pavlou, 2003). For example, how intangibility creates difficulty in the purchasing decision at the time of online purchase (Murrarh & Schlacter, 1990). A firm can send out signals of having a good reputation by improving service quality online and offline which can increase consumers purchase intention (Gefen, 2000; Yoon, 2002).

3. Research Methodology

3.1 Introduction

Having clearly established the theoretical framework upon where this research emerges from, this chapter will identify the methodological process that was undertaken in order to evaluate the research questions and objectives. The research project focuses on further exploring the variables that affects purchase intention of skin care online, with the expectation of gaining strengthened insights into how e vendors can increase purchase intention and trust by using different phenomena, as derived from the research questions and objectives. The research was exploratory in nature, with the hope to achieve further insights - in the skin care market specifically - based on evidence from previous literature. The research questions will be answered and the objectives achieved by administering an online survey to be analysed using quantitative analysis methods.

3.2 Research questions and objectives

Vast amounts of research over the last 10 years has been documented in relationship to consumer behaviour online. Some of the relevant literature describes how trust is an important antecedent of shopping behaviour online (Gefen, 2000; Jarvenppa et al., 2000; McKnight el al., 2002) and the different motivational variables for online purchase have been examined (Wolfinbarger and Gilly, 2001; Jayawardhen et al., 2007). However, it emerged from the current literature that no studies within knowledge, have been conducted directly assessing the variables affecting consumers' purchasing behaviour, when buying skin care online. Therefore, this research breaks down into 3 research questions that aim to identify the gap in the literature:

1. How does trust in the brand increase the consumers' intention to purchase cosmetics online?
2. How does the lack of tangible cues affect consumers' perceived risk when buying cosmetics online?
3. What are the key motivators for consumers' purchase decisions for cosmetics online?

The objectives therefore, that the research questions aim to achieve are:

A. Evaluate the variables affecting consumer behaviour in the context of buying skin care online, based on previous literature regarding perceived risk and online trust.
B. Explore the motivating factors that can encourage a consumers' intention to purchase their skin care online, giving critical insight into how the e-vendor can use these factors to encourage consumers to purchase online.

C. Investigate the lack of tangible cues and the effects it has on online consumer behaviour when purchasing skin care.

3.3 Research Philosophy

Consumer research can be classified based on the fundamental assumptions made by the researcher, in relationship to the area of study and how the method of research is being conducted (Solomon et al., 2013). The set of beliefs on which these assumptions are made are known as paradigms or research philosophies. As described by Solomon et al (2013) consumer behaviour is underpinned by two major perspectives, the positive approach and the interpretivist approach, which both help the researcher identify data gathering techniques, research design, samples and data analysis (Hudson and Ozanne, 1988).

It is possible to presume that there isn't much in the way of distinction between quantitative and qualitative research, other than the fact that quantitative research employs measurement of data, and qualitative does not. However, researchers over the years have argued that the differences between the two types of data, differ regarding the epistemological foundations researchers take and their philosophical assumptions (Krauss, 2005) whether it be a positive approach or an interpretivist approach (Bryman, 2012). Furthermore, it is important to note that although there are differences between the two approaches, this does not mean that either research philosophy is bound to a specific research process (Hudson and Ozanne, 1988). As shown in table 1 the positive approach is underpinned in the beliefs that reality is independent of us, where there is only one single truth discovered by theories based on empirical research, whereas interpretivism is underpinned by philosophies suggesting that the society is highly subjective, and research is shaped with methods that seek to describe and translate meaning (Collis and Hussey, 2009).

For the purpose of this paper, a positivist approach will be followed, since the methods being monitored for this research aim to test proposed theories from the literature and provide the development of laws for future research (Bryman, 2012). The positivist approach to this research will allow data to be collected without interfering with the variables being studied, leaving them unaffected by the research activities (Collis and Hussey, 2009). In the context of online consumer behaviour research, the relationship between the behaviour and the variables affecting it are being explored in this area of research, which is why this research will be regarded as exploratory nature.

Table 1: Positivist vs Interpretivist approaches to consumer behaviour

A SUMMARY OF THE POSITIVIST AND INTERPRETIVE APPROACHES		
ASSUMPTIONS	**POSITIVIST**	**INTERPRETIVE**
Ontological		
Nature of reality	Objective, tangible Single Fragmentable Divisible	Socially constructed Multiple Holistic Contextual
Nature of social beings	Deterministic Reactive	Voluntaristic Proactive
Axiological		
Overriding goal	"Explanation" via subsumption under general laws, prediction	"Understanding" based on Verstehen
Epistemological		
Knowledge generated	Nomothetic Time-free Context-independent	Idiographic Time-bound Context-dependant
View if causality	Real causes exist	Multiple, simultaneous shaping
Research relationship	Dualism, separation Privileged point of observation	Interactive, cooperative No privileged point of observation

Source: Hudson and Ozanne (1988) pp. 509

Statistical analysis for this research will be used as a measurement of behaviour and to test theories proposed from previous literature (Creswell, 2003). Hunt (1991) argues the view that a positivist approach seeks causal explanations and assumes that real causes or a single cause exists, however, research under the positivist approach should in fact avoid both of these traditional assumptions for causality. Consumer behaviour online is an area which has been vastly looked at, however the variables that affect behaviour of consumers purchasing skin care has not specifically been examined. Therefore, assumptions on the results of the data cannot be made, but only predictions can be tested based on evidence from previous literature and data collected by the means of questionnaires.

3.4 Research Questionnaire design

According to Bryman (2012) the research design will provide the ground work for the collection and the examination of data. In the case of this research under the philosophy of positivism, primary data will be collected by the method of administering a survey. The survey method of obtaining information is based on a controlled questionnaire administered to a sample of a population, designed to produce specific information from the sample of respondents (Malhotra and Dash, 2013). According to researchers the questionnaire method of retrieving data has many advantages such as, being simple to administer and the data should be reliable due to the limit of alternate answer options. However, disadvantages are also present as respondents may not be able to provide the desired information to a questions due to restrictions of answer choices. The fixed-response question style may conclude in a lack of validity for certain types of data, including those regarding feelings and beliefs (Malhotra and Dash, 2013).

A questionnaire should have 3 main objectives according to Malhotra and Dash (2012) visible in table 2.

Table2: Questionnaire Objectives

1. The questionnaire must be able to ask questions to the respondents based on the information needed by the researcher
2. The questionnaire needs to be able to keep the respondent entertained, without feeling fatigued or bored
3. The questionnaire must minimize error in responses, due to respondents giving inaccurate answers.

Source: Malhotra and Dash, 2012

In order to produce appropriate questions for the survey, the information needed for the research needs to be specified by reviewing the components of the research problem and, by re addressing the research questions (Malhotra and Dash, 2013). Respondents for the questionnaire will be chosen in accordance to the information that needs to be obtained, the sample population will be discussed in greater detail within this chapter. The generation of items for this questionnaire were based on the five rules cited by Spector (1992) being: (1) only one idea was expressed by each item; (2) both positive and negative items were included; (3) jargon and colloquial expressions were omitted; (4) use of negative when reversing items was avoided; and (5) a low level reading age was aimed for. (The latter was not tested, but the participants in the pilot study, minimum education GCSE, reported no difficulties. The pilot test will be discussed in further detail).

The nature of the research is specifically looking within the area of skin care, it is therefore important for the data of this research, that the respondents were familiar with the definition of skin care. Before respondents are able to fill in the questionnaire, they are made aware of the nature of skin care as it is often confused with other items within the cosmetics field, such as colour items and makeup. Furthermore, an initial section within the questionnaire states that participants will have needed to have purchased skin care online at least once in order to partake, this will filter out respondents who are not adequately informed. The questionnaire is composed of eight parts. The first section of the questionnaire asks for respondents biographical data. This included personal information such as gender, age group, level of education, experience on the computer and experience on the internet. The remaining sections of the questionnaire deal with the addressing the research questions.

As mentioned previously, the study is concerned with the variables that are important determinates of consumers online shopping behaviour of skin care. The effect of these variables on consumer purchase behaviour was measured on a 34 item index constructed by the researcher (See appendix 1), where items are scored using a five point Likert scale. The

items were grouped in accordance to the specific theories affecting online consumer behaviour, for example, reputation and quality of service. The scale was made by evaluating the main constructs present in the literature contributing to online consumer behaviour. Thus, the research instrument consists of 4 items measuring Brand experience and reputation (REP), 3 items measuring warranty information online (WAR), 4 items measuring security and privacy online (SEC) 10 questions measuring the online quality of service (QOS), 3 items measuring the effect of the design of the website (DOW), 6 items measuring the effects of trust (TRU) and 4 items measuring risk (RIS). The respondents indicate the degree of agreement or disagreement with each of the questions asked about the stimulus objects, ranging from strongly agree to strongly disagree (Malhotra and Dash, 2013). Four items in the questionnaire were reversed to prevent response bias in the form of "I am less likely to purchase skin care online" as supposed to "I am more likely to purchase skin care online".

3.5 Procedure for data collection

Sample questionnaires were given to three females known to the researcher for completion for a pre-test. Two of the respondents was educated to degree level and the other to GCSE level. All respondents recorded that the questionnaire took between 5 to 10 minutes to complete. One of the items listed under question 9 about returns in-store was not fully understood, therefore the wording was changed from "I am more likely to purchase skin care online if in store return is possible" to "I am more likely to purchase skin care online if the website offers the facility to return the product in store". No respondents in the pre-test reported any difficulty in understanding the research questions or the instructions provided by the researcher. The pre-tests importance regards increasing research validity, and making sure that the research collected will measure the concept the research is trying to measure (Collins and Hussey, 2009). Screening the questionnaire first allows for errors to be ruled out before being given to the target population, potentially reducing item non-response error.

As discussed, facial skin care in the UK alone secures a huge amount of male and female consumers, due to the importance placed on maintaining appearance in our society, the skin care market was valued at over ££2.1 billion in 2013 (Euromonitor, 2014). The penetration of consumers therefore that purchase skin care in the UK is a huge proportion of the overall population, and therefore to try and envision a sample size which is representative of the target population, would be beyond possibility for this research. A non-probability approach, combining convenience sampling and snow ball sampling, were applied for this research project (Malhotra and Dash, 2013). Furthermore, 508 members of the social media network Facebook were randomly selected, including male and female respondents, as a sample and invited to take part in the online survey via Facebook messenger, and wall posts. The snowballing sampling technique was administered in which the initial group of respondents selected randomly, referred the survey details onto other participants, and so on and so forth. The research was collected over a time frame of 3 weeks, using an online survey administering

programme, Survey Monkey. As discussed, users needed to identify with the definition of skin care, and be aware that the survey required them to have purchased skin care online at least once. Due to the exploratory nature of the research, the time and cost considerations, nonprobability sampling represents an appropriate way of collecting data for this research.

3.6 Ethics

When conducting and collecting research, the research has several responsibilities to the participants and the client for whom they are doing the research for. The research therefore, must be designed in an appropriate way for controlling the sampling and non-sampling errors (Malhotra and Dash, 2013). In order to ensure that ethical practices are being followed a number of factors have been considered within this research. Collins and Hussey (2009) stress that one of the most important principles regarding ethics, is that participants should not be forced into taking part in research, and it is advisable to avoid offering money or gifts for completion of surveys, as this may lead to biased results. Anonymity and confidentiality was offered to all participants, allowing them to remain anonymous at all times. Participants were also given the opportunity to fill in an identifier, which was a unique code comprised of 6 digits where this code could be used to withdraw consent at any time within and after the research process (See appendix 16).

3.7 Limitations of study

A limitation with a study identifies a weakness or deficiency in the research or data presented (Collis and Hussey, 2014); understanding and identifying the limitations of the study will help to identify issues that will need to be addressed in the analysis. The limitations to be addressed in the methodological process of this research include:

- The time frame and cost limitations when conducting this study has impacted the number of respondents who took part in the online survey. A larger sample would generate a more reliable analysis, and would be a better representation of the target population.
- In order to conduct a factor analysis being used to assist analysis of this data, an ideal number of respondents, as proposed by Gorsuch (1983) would include a minimum of five subjects per variables and no less than 100 participants per analysis.

3.8 Data Analysis

The online survey was conducted using the online survey generator, Survey Monkey. This program allowed for results to be downloaded straight into the data analysis software, SPSS 21, used for this project. The initial step carried out before the data was analysed, was checking all 109 responses for completeness and quality. The Editing stage of the analysis process is crucial for increasing accuracy and precision, where all questionnaires were

screened to identify completeness, consistency and rule out ambiguous responses (Malhotra and Dash, 2013). The item scale was created by the researcher, and although scales relating to consumer behaviour and trust exist, a specific scale relating to skincare was not directly assessable (DeVellis, 2012). The 34 item scale was made up of theories surrounding previous literature and proven ideas. In order to test the scales internal reliability, Cronbach's alpha[1] coefficient was used, see table 3. It is suggested that the Cronbach alpha coefficient of a scale should be above 0.7 (DeVillis, 2012) where this research reported a coefficient of 0.897 showing good internal consistency.

Table 3: Cronbach's Alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.897	.902	34

In order to analyse the data and minimise error, a codebook was prepared, acting as a summary of the instructions used to convert the information acquired from each respondent into a format that the IBM SPSS software will recognise (Pallant, 2013). Each question and item listed in the questionnaire was given a unique variable name, which clearly identifies the information (see appendix 2). The coding process consisted off assigning a code to represent a specific response to a specific question. Variables such as sex were converted into numbers, where 1= Females and 2 =Males, and the 5 point likert scale was coded as follows: 1= Strongly Agree, 2=Agree, 3= neither agree nor disagree, 4= Disagree & 5= strongly disagree.

After the variables had been defined, the data file was screened and cleaned for errors, which involved checking that that all the scores for each variable was within the range set (Pallant, 2013). The data file was also checked for missing data points and replaced by calculating the mean for the missing point. In order to review the statistical data, descriptive tests were carried out on all the variables present in the study, firstly the demographic data (see appendix 3) and then the scale ranking variables. These tests produced frequency of responses, means, the Standard deviation, Skewness and Kurtosis, and the highest and lowest answer for each item in the scale (see appendix 4). Normality of the distribution of all the variables was then assessed in order to view outliers and extreme values, in this case one outlier from the study was excluded due to the nature of the responses given for the questionnaire items by this respondent.

In order to assess the suitability for a factor analysis, a correlation matrix was run on the data to explore the strength of the relationships between the variables, if there were no significant correlations between the 34 items, it means they would be unrelated and the research would

[1] Cronbach Alpha coefficient tests to what degree the items that make up the scale 'hang together' and if they are all measuring the same construct (Pallant, 2013).

not be suitable for a confirmative factor analysis (Bryman and Cramer, 1997). As suggested by Bryman and Cramer (1997) rho (r_s) is the more preferable choice among researchers for correlation using parametric testing, and was therefore considered acceptable to use in this research. The correlation matrix indicates both the positive and negative strengths of the relationships between the variables.[2]

A factor analysis[3] was conducted for this research after it was determined that the data met the specific criteria. For the purpose of this study it is being used to refine and reduce the 34 variable items on the questionnaire into a more manageable number for evaluation, which could be used for further analysis (Pallant, 2013). As suggested by Tabachnick and Fidel (1996) there are some theoretical issues when performing a factor analysis, such as the overall sample size being tested, where the correlation coefficients tend to be less reliable when tested on small samples, they suggest "it is comforting to have at least 300 cases for a factor analysis". Unfortunately the study only yielded 109 respondents in 3 weeks due to time and cost restrictions. However, Tabachnick and Fidel (1996) also recommend inspecting the correlation matrix for strength between items. Two other measures conducted to review suitability for factor analysis are the Bartlett's test of sphericity (Bartlett, 1954) and the Kaiser-Meyer Olkin (KMO) measure of sampling adequacy (Kaiser 1970, 1974). The results for suitability should show that Bartletts test of sphericity should be significant ($p < .05$) and KMO index to be .6 as the suggested minimum value for suitable factor analysis (Tabachnick and Fidel, 2013).

34 items were assessed in the factor analysis, where Kaiser's criterion (also known as the eigenvalue rule) was used to only retain factors with an eigenvalue of 1.0 or more, representing the amount of total variance explained by the factors (Pallant, 2013). A scree test was also produced using IBM SPSS where each of the eigenvalues of the factors is plotted on a graph. In order to confirm the amount of factors to be retained for further inspection for this research, Horn's parallel analysis[4] (Horn, 1965) was employed. The parallel analysis has been shown to be the most accurate way of employing the right amount of factors to inspect further (Hubbard and Allen, 1987; Zwick and Velicer, 1986). The factors were then

[2] Negative correlation shows that as one variable increases the other one decreases and a positive correlation shows as one variable increases so does another one (Pallant, 2013). If there is a correlation of 0 this indicates no relationship between the variables.

[3] For the purpose of this study, a factor analysis was used to reduce the number of variables and explore the relationships between them in order to identify the underlying factors important to this study (Malhotra and Dash, 2013).

[4] Values are randomly generated from a data set the same size, and then compared to the real eigenvalues, where only those that exceed the corresponding values from the data set are retained for further analysis (Pallant, 2013).

assigned a label as to be able to interpret the factors more clearly, and evaluate their significance (Tabachnick and Fidel, 1996).

3.9 Summary

As described by Solomon et al (2013) consumer behaviour is underpinned by two major perspectives, the positive approach and the interpretivist approach, which both help the researcher identify data gathering techniques, research design, samples and data analysis (Hudson and Ozanne, 1988). For the purpose of this research a positive approach was followed in order to undertake the data analysis, using statistical methods. The data was collected via the means of a questionnaire administered to the online social media site, Facebook. The factor analysis being employed in this research paper aims to minimise the number of variables into a more manageable set of factors, making up the underlying foundations of consumer behaviour online purchasing skincare.

4. Research Findings

Having followed the procedural process conducted for the research, the main aim of this section is to thoroughly identify the data received from the questionnaires and provide a detailed explanation of the findings, any patterns observed and answer the research questions and achieve the aims. This research paper and the data collected, has been executed via statistical analysis following a positive research approach. The findings of this data are presented in this chapter, where the factor analysis reveals patterns of correlation among the variables that replicate fundamental processes affecting the behaviour of consumers purchasing skin care online.

4.1 Sample description

The online survey was administered via the social networking site Facebook, visible initially to 508 people. A snowballing sampling technique was also used in this research, where the initial group of respondents on the social media network, would pass on the survey to the target population of interest. As the respondents remained anonymous for the purpose of this study, it is impossible to estimate the total attempted interviews that were completed by people who were asked to complete the survey. In the opinion of researchers, internet surveys yield the lowest response rates (Malhotra and Dash, 2013) which can span from 6 to 75% (Sheehan and McMillan, 1999). In light of these views and the low response rates for online surveys, the questionnaire was sent out in the early morning hours and early hours of the evening, where the target population were more likely to be engaging in online communications (Pan, 2010).

The online survey generated 109 responses, of which 7 were incomplete and were immediately discounted, meaning the overall competition rate was 93.6%. The sample of respondents consists of 90 (88.2%) females and 12 (11.8%) males, marking an unequal gender distribution. Some differences were observed between the data recorded for men and for women, most noticeably within the variable categories of Quality of Service and risk. These differences were noted by evaluating box plots and histograms from the data of each sex for example, the observed mean for variable risk2 “I am less likely to purchase skin care products online that I have never smelt before” was 2.48 for women and 3.33 for men (See appendix 5). As the distribution of men and women respondents were unequal for this study but only minor differences were noted, at this stage of research, it was

The age distribution for this study consisted of, 0 respondents under 18, 39 (38.2%) 18-29 year olds, 23 (22.5%) 30-44 year olds, 35 (34.3) 45-59 year olds, and 5 (4.9%) respondents over 60. After evaluating the nature of this data, it was decided to reduce the number of categories within the Age variable, combining the age groups 45-59 and over 60, as there was only a small percentage of respondents who fell into this category (Pallant, 2013). The data spread for this variable was fairly evenly distributed. Additionally, it was recorded that 1

respondent (1%) possessed less than a high school degree, 4 (3.9%) had a High school degree or equivalent, 27 (26.5%) had college or A level degree, 33 (32.4%) had an Undergraduate degree, 34 (33.3%) had a Postgraduate degree and 3 (2.9%) had a Doctorate level degree. Where appropriate, these variables were also collapsed to combine, less than high school degree, high school degree or equivalent and A level degree, to a new variable named "Up to A levels/College degree".

Based on the years spent using the internet, there were no respondents who recorded within the variables of less than one year and 1-3 years, 13 (12.7%) recorded they had been using the internet for 4-7years, and then the majority of respondents 89 (87.3%) recorded that they had been using the internet for more than 7 years. Furthermore, for experience on computer and experience on the internet, measured with a 7 point Likert scale no respondents recorded being complete novices or complete experts, therefore for both categorical variables the number of categories were collapsed to Novice, Intermediate and expert. For all new collapsed variables see appendix 6.

4.2 Data screening and exploratory statistics

4.2.1 Data screening

Missing data was checked for randomness of appearance. Some respondents have omitted occasional responses. Once identified, these missing points were replaces by the item mean as suggested by Tabachnick and Fidell (1996). An example includes a missing data point for the variable QOS9 where a respondent had failed to answer this question, as all the other data recorded for this respondent was free from error, it was decided to replace this value with the mean, which for this instance was 2.

The data was then screened for outliers and normality of distribution (see appendix 8). Several outliers were observed but were representative of the sample, however respondent 83 was considered an outlier[5] for the majority of cases, and was deleted from the data set, where elimination reduces the number of outliers (Tabachnick and Fidell, 1996). The other outliers on the box plots were assessed by comparing the original mean values for each variable with the trimmed mean[6]. By comparing the original and trimmed mean, conclusions about whether the extreme scores had any strong influence on manipulating the mean (see Appendix 7). It was not observed that any mean score had been compromised due to the extreme values within this research.

A test for assessing normality within the data was conducted via running descriptive statistics, where normal is used to describe the appearance of a symmetrical bell shaped curve, where

[5] When running the box plots using IBM SPSS, an outlier is considered any point that extends more than 1.5 box-lengths from the edge of the box.

[6] The 5% trimmed mean, as explained by Pallant (2013) is a value where by the top and bottom 5 percent of cases in the data are removed and a new mean is therefore created.

the majority of frequencies fall within the middle of the bell. The Normality[7] can be assessed by obtaining the skewness and kurtosis values (Pallant, 2013). The histograms generated from the descriptive statistics showed mostly positively skewed results, meaning there was a cluster of respondents scoring Strongly Agree on the 5 point Likert scale. However the positive skewness was to be expected due to the nature of the research and will be discussed in this chapter in more detail. Due to the skewed nature of the histograms, Non-parametric or distribution free tests were chosen for the analysis of this data, whereby they do not depend on the assumption about the definite form of the distribution of the sampled respondents (Bryman and Cramer, 1997 & Pallant, 2013). Using non-parametric testing is suggested ideal when using nominal and ranked scales, which is true for this research. Furthermore, when the sample size is small the data may not meet the stringent assumptions required for a parametric test (Pallant, 2013). The sample size is an example of one of the limitations of this study and will be discussed further in the following chapter.

4.2.2 Exploratory Statistics

The means and standard deviations for the 34 variables are presented below in table 4. The minimum and maximum values represent the highest and lowest score recorded for each item on the scales, for example, no respondents recorded strongly disagree for item Quality of service 6.

Table 4: Exploratory Statistics, means, Standard deviation (SD), Skewness & Kurtosis

	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Reputation1	1	5	1.88	.978	1.147	.723
Reputation2	1	5	1.90	.873	1.194	1.614
Reputation3	1	5	2.30	.993	.653	-.109
Reputation4	1	5	1.98	.783	1.043	2.095
Warrenty1	1	5	2.21	.988	.577	-.358
Warrenty2	1	5	2.53	.992	.258	-.533
Warrenty3	1	5	2.15	1.028	.758	-.055
Security and Privacy1	1	5	2.30	1.022	.377	-.484
Security and Privacy2	1	5	1.69	.867	1.496	2.359
Security and Privacy3	1	5	1.69	.890	1.439	1.934
Security and Privacy4	1	5	1.44	.725	2.273	6.907
Quality of Service1	1	5	1.88	.871	1.058	1.224
Quality of Service2	1	4	2.49	1.012	-.002	-1.077
Quality of Service3	1	4	2.29	.960	.264	-.849
Quality of Service4	1	4	1.91	.810	.849	.617

[7] However, as suggested by Pallant (2013) it is important to note that normal distribution is not always present and skewness can be observed, positively or negatively within the social sciences, which does not indicate a problem with the scale but in fact represents the nature of the hypothesis being measured.

Quality of Service5	1	4	2.26	.889	.312	-.571
Quality of Service6	1	4	2.38	.879	.144	-.640
Quality of Service7	1	4	2.44	.950	-.005	-.906
Quality of Service8	1	4	1.73	.720	.791	.505
Quality of Service9	1	4	1.74	.730	.769	.355
Quality of Service10	1	5	2.39	.997	.304	-.682
Design of Website1	1	4	1.73	.677	.789	1.062
Design of Website2	1	4	1.83	.691	.600	.601
Design of Website3	1	5	2.59	.968	.112	-.733
Trust1	1	4	1.76	.773	1.092	1.400
Trust2	1	4	1.86	.732	.839	1.150
Trust3	1	5	1.70	.876	1.629	3.234
Trust4	1	4	2.00	.879	.714	-.026
Trust5	1	4	2.01	.814	.543	-.086
Trust6	1	5	2.27	.903	.331	-.216
Risk1	1	4	2.48	.992	.148	-1.008
Risk2	1	5	2.57	1.039	.083	-.974
Risk3	1	5	2.52	.972	.241	-.698
Risk4	1	5	3.13	1.012	-.027	-.439

Based on previous research presented in the literature review, assumptions in the form of the hypothesis have been used to predict the outcomes of the results. Therefore, due to the nature of the way the questions have been asked "I am more likely to purchase skin care online…" and the expected outcome of the results, perfect research data for this paper, would show that the mean results fall between 1 -2, with positively skewed outcomes.

As can be observed from the means, SD, skewness and from the normal distribution plots scores relating to variables within Reputation, Design of Website, Security and Privacy, Quality of Service and Trust showed a majority of positively skewed results, suggesting a pile up of cases on the left hand side, indicative of lower mean scores. However, the variable Quality of service 2 had a very slight negative skew value of -0.002 and a larger standard deviation value of 1.012, compared to the other variables, signifying the dispersion within the distribution (Bryman and Cramer, 1997). Respectively, Quality of Service 7 also showed a very small negative skew value of -0.005. The variable regarding Design of Website 3, showed a positive skewness value of 0.122 but a lower mean value score than expected (2.59) indicating higher scores among respondents.

The mean scores for variables within Warranty, and Risk showed higher results, with a more even distribution or curve slightly skewed to the right, especially in the case for Risk. The means for variables within Risk were clustered around the average where a score of 2.5 being the middle of possible scores, however positive skewness was still observed. The variable

risk 4 produced the highest value mean 3.13 and a small negative skewness of -0.027. The lower values recorded within the category of risk were not as expected. This could be due to the reverse wording for this final set of questions.

"I am less likely to purchase skin care online…."

4.2.3 Correlation analysis

A correlation analysis has been used for this study to describe the strength and direction of the linear relationships between the variables, it was essential to determine the correlation between the 34 items to assess the suitability for factor analysis (Bryman and Cramer, 1997). Spearman's rho (r_s) was used as a non-parametric means of testing the correlation between the variables, offering fewer assumptions about the variables (Bryman and Cramer, 1997). The inter-correlations among these variables are presented in the appendices (see appendix 9).

The table was first observed with all 34 variables also including demographic data to determine if strong relationships existed. However among the variables Education new, Computer experience new and Internet experience new, there did not seem to be any strong inter-correlations with the other variables with readings falling closer to 0. After evaluating the descriptive statistics, the majority of respondents had a high level of education and were experienced on the computer and internet, suggesting that the other scores would not be affected as the competence level for purchasing online has been met. Regarding Age, an important observation was discovered regarding the strong correlation with item Trust6 scores (r_s =.301, p<0.01)[8]. The correlation suggested that the younger the respondent the more likely they would be to purchase skin care online if a blog had reported good reviews, where the mean for 18-29 year olds was 2, for 30-44 year olds it was 2.27 and 45-59 year olds 2.51 (see appendix 10) this point will be discussed in the recommendations chapter. Furthermore, as the correlations between the demographic data and the 34 items were not majorly significant, the respondents for this research will be talked about as a whole sample.

Firstly, as expected there were strong correlations within variable items; for example security and privacy 1 (SEC1) , had strong inter-correlations with SEC2, SEC3 & SEC4 and vice versa, these observations were also relevant for other variable groups such as Quality of service (QOS) and Trust (TRU).

Secondly, it was observed within the research that certain variable groups had stronger inter-correlation items then with other items. For example, variable items for Trust (TRU) have positive correlations with all item variables within security and privacy (SEC) and design of website (DOW), more specifically TRU5 has very strong correlations with DOW1, DOW2 & DOW3. TRU5 & DOW1 reported scores: r_s =.308, p<0.01, TRU5 & DOW2 reported scores:

[8] r_s = strength of correlation p = significance level

r_s=.542, p<0.01, TRU5 & DOW3 reported scores: r_s =.331, p<0.01. Suggesting that a consumer who is more likely to purchase skin care online when hearing good reviews about a product in magazines, is also more likely to be influenced by the design and interactivity of the website.

Thirdly, the correlation matrix showed strong correlation between risk items, RIS1, RIS2, RIS3, & RIS4 and with REP3. RIS1 & REP3 reported scores: r_s =.361, p<0.01, RIS2 & REP3 reported scores: r_s =.288, p<0.01, RIS3 & REP3 reported scores: r_s =.454, p<0.01. This would suggest that consumers who would be more likely to purchase skin care online if the brand had a brick and mortar setting agree that buying skin care that they have never tested before, to be more risky. This view confirms that perceived risk associated with consuming online goods can be reduced by increasing trust online and offline (Pavlou, 2003; Koufaris and Hampton-Sosa, 2004).

Fourthly, the correlation matrix also showed strong correlation between risk items RIS1, RIS2, RIS3, & RIS4 and with DOW3. RIS1 & DOW3 reported scores: r_s =.273, p<0.01, RIS2 & DOW3 reported scores: r_s =.214, p<0.05, RIS3 & DOW3 reported scores: r_s =.237, p<0.05, RIS4 & DOW3 reported scores: r_s =.350, p<0.01. This would suggest that consumers who would be more likely to purchase skin care online when they are asked interactive questions about their needs, also agree that buying skin care online that they have never tried/tested before, to be more risky. This confirms the empirical studies showing that the web design functions are strong predictors of a consumer's satisfaction (Lee and Lin, 2005; Wolfinbarger and Gilly, 2003). An important point that shows significance was the high score recorded specifically between RIS4 & DOW3, where it is suggested that consumers who find purchasing skin care online to be more risky due to the lack of interaction with a sales assistant would more likely purchase skin care online when asked interactive questions about their specific needs.

The strong inter-correlations among the item variables suggested that this research met the criteria for a factor analysis, which will be discussed below.

4.3 Factor analysis

For the purpose of this study, a factor analysis was used to reduce the number of variables and explore the relationships between them in order to identify the underlying factors important to this study (Malhotra and Dash, 2013). The factors derived after the analysis had taken place, signified underlying dimensions that explains the correlations among the set of variables. The subsequent factor scores represent the relative significance of each variable to each factor (Collis and Hussey, 2014).

4.3.1 Factor analysis suitability

In order to further asses the suitability for the factor analysis[9] (the principle components method) using IBM SPSS functions, the Barlett's test for sphericity (Bartlett, 1954) and the Kaiser-Meyer Olkin (KMO) measure of sampling adequacy (Kaiser, 1970) were carried out. As suggested by Tabachnick and Fidell (2013) the Barlett's test of sphericity should be significant ($p<0.5$) and the KMO index should be no less than .6, table 5 below shows the suitability for factor analysis.

Table 5: Kaiser-Meyer-Olkin & Bartlett's Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.742
Bartlett's Test of Sphericity	Approx. Chi-Square	2236.076
	df	561
	Sig.	.000

The correlation matrix produced by the factor analysis (see appendix 11) provides all correlations among variables, where coefficients of .3 or greater are deemed significant, meaning strong suitability for a factor analysis (Pallant, 2013).

4.3.2 Factor Extraction

The factor extraction process involved determining the smallest amount of factors that were able to represent the interrelationships among the variables used in this research; where the number of factors that are considered relevant have been decided to best describe the underlying relationship among the variables (Pallant, 2013). Deciding the number of factors to retain for this research was decided after running the output on IBM SPSS using various different techniques to secure the appropriate amount of factors that were most relevant.

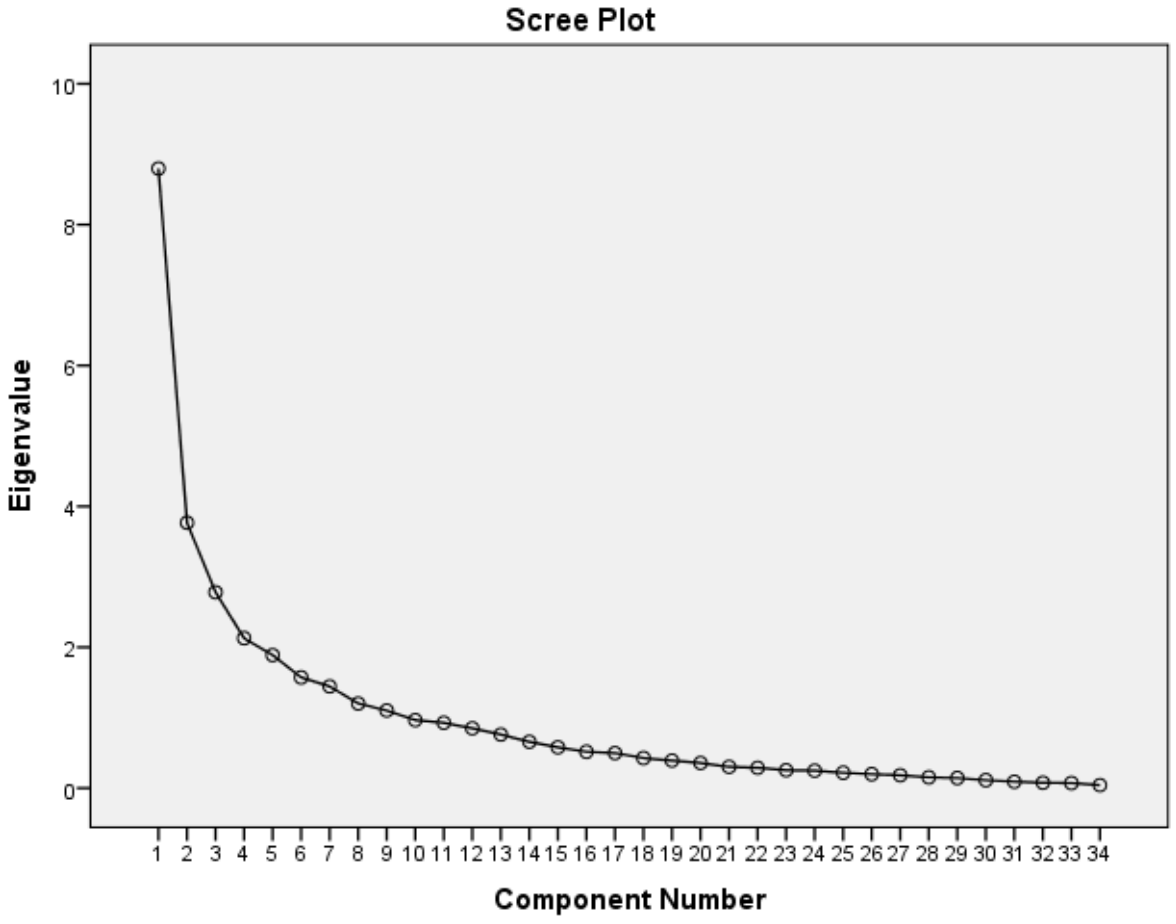
Using Kaiser's criterion, only components that had an eigenvalue of 1 or more were considered for further investigation, where the eigenvalue of a factor represents the amount of total variance explained by that factor (Pallant, 2013). The total variance explained table (See appendix 12) provides a list of values labelled Initial Eigenvalues, where 9 items had an eigenvalue above 1, accounting for 72.6% of the total variance. As suggested by Pallant (2013) it is important to evaluate the Scree Plot given in the output of a factor analysis, to further determine the suitability of the factors to keep for advance interpretation. The scree plot shown below (see figure 1) shows a slight break in the between the 6th and 7th components. However, as reported by Gorsuch (1983) the results of a scree test are more reliable when the

[9] Factor Analysis (FA) produces factors, and Principle components Analysis (PCA) produces components, however researchers tend to use the word factor when describing outputs from a PCA (Tabachnick and Fidell, 1996). Factor analysis is used as the general term to refer to the entire family of techniques (Pallant, 2013). The word "Factor" will be used to describe the components in this research.

sample size is large; as this is not the case for this research another method to determine the amount of factors to retain was tested.

Furthermore, a Parallel analysis was conducted as an additional technique to assess the suitability of factors to retain. Horn's parallel analysis (Horn, 1965) has grown in popularity among social science research (Fuqua & Griffin, 2001; Stober, 1998) and involves equating the size of the eigenvalues with those acquired from a randomly produced data set of the same size (See appendix 13). From this analysis it was shown that up to factor 6 should be retained for this research explaining 25.9%, 11.1%, 8.2%, 6.3%, 5.6% and 4.6% of the variance respectively (accounting for 61.58% of the total variance). The more factors extracted from the data, the larger percentage of variance in the data is explained by the factor solution, and therefor provides a better fit (Tabachnick and Fidel, 1996).

Figure 1: Scree Plot of factors



4.3.3 Factor rotation and interpretation

After extraction, rotation of the factors was used to increase interpretability, in order to maximise the loadings of some items, which can be used to identify a factor (Bryman and Cramer, 1997; Tabachnick and Fidel, 1996). According to Tabachnick and Fidel (1996) the

two most commonly used approaches for rotation are orthogonal (uncorrelated) or oblique (correlated) solutions, where a stable solution is assumed to emerge regardless of the rotation method used. For this research an orthogonal rotation solution was applied using the varimax[10] method, the most commonly used rotation method available (Tabachnick and Fidel, 1996). Varimax rotation allows factors to be interpreted easily as there is obvious evidence from the results which variables correlate with it (Tabachnick and Fidel, 1996).

Patterns can be seen in the rotated solution (See appendix 14). Highly correlated variables shown in the factor analysis correlation matrix, load onto the same factor. For example component 2 shows variable loadings with SEC1, SEC2, SEC 3, SEC 4 & WAR 1; the correlation scores for WAR1 & SEC1 r=.445, WAR1 & SEC2 r=.589, WAR1 & SEC3 r=.471. Furthermore, component 4 also shows some high variable loadings with REP 1, REP2, QOS10 & QOS4; the correlation scores for REP1 & QOS10 r=0.300, REP1 & QOS4 r=.300, REP1 & REP2 r=.642, REP2 & QOS10 r=.318.

In order to interpret and name the factors, understanding the underlying dimensions that combines the group of variables loading on it is executed (Tabachnick and Fidel, 1996). After the Varimax rotation had been performed, the values witnessed in the loading matrix, are correlations between variables and the factors. It is suggested by Tabachnick and Fidel (1996) that the researcher should decide on criteria that specifies for a meaningful correlation, then observe the variables with loadings that exceed the criteria and describe the concept that unifies them. Evidence stated by Comrey and Lee (1992) implies that loadings in excess of .71 are excellent, .63 are very good, .55 are good, 0.45 are fair and 0.32 are poor, where cut of factor is a matter of research preference. After evaluation of the variables loading on each factor, the cut off was any variable with a loading of more than 0.35, as characterization of the factors (components) after these points had been removed, made more scientific sense.

The factors were labelled after reviewing the items loading on them (see appendix 15). The correlations among the variables observed in factor one reflect underlying processes that make up "service quality" indicating the most important determinant of consumer's online shopping behaviour of skin care, accounting for 25.87% of the total variance. This factor is characterized by correlating items showing the consumers' intention to purchase skin care based on the knowledge that the online vendor is offering high levels of service, regarding product quality and quality of information offered to consumers. For example, the vendor is keeping promises regarding product quality (TRU1) and offered delivery times (TRU2), the website can offer information about the products offered (QOS1) where consumers who have read good reviews in blogs and magazines (TRU 6 & TUR 5) are more likely to purchase. The

[10] Varimax rotation aims to minimise the number of variables that have a high loading across each factor (Pallant, 2013) and the spread in the loadings is maximized, where loadings that are high after extraction, get higher after rotation, and loadings that are low after extraction, get lower (Tabachnick and Fidel, 1996).

evidence from this data supports researchers' views that online trust is imperative for websites to succeed in the online market place (Koufaris & Hampton Sosa, 2004; Yoon, 2002; Ha, 2004), where by increasing service quality also increases consumer trust in the companies capabilities to deliver its promises (Trocchia and Janda, 2003).

The correlations among the variables observed in factor two reflect underlying processes that make up "Website security" accounting for the second largest amount of explained variance (11.08%) and is characterized by correlating items where a consumer is more likely to purchase skin care online when they believe their details are not being transferred (SEC3) and that this information is kept safe by the vendor (SEC2). Furthermore, the items loading on this factor show in terms of website security, consumers regard privacy policies (SEC1) and a safe way to pay online (SEC4) and a clear returns policy (WAR1) to be significant. Therefore, the effect of putting in place security/privacy and warranty information that is clear for consumers', will make them more likely to purchase skin care online. This data supports researchers evidence that, privacy concerns and data collection are among the main reasons consumers worry about purchasing online, and by creating easy to access privacy policies, more trusting relationships between the company and the consumer are created (Wang et al., 1998; Martin and Camarero, 2008; Belanger et al., 2002).

The correlations among the variables observed in factor three reflect underlying processes that make up "Intangibility" accounting for 8.18% of the explained variance, and is characterized by correlating items suggesting that a consumer is less likely to purchase skin care online that has never been smelt, (RIS2) has never been felt or tried (RIS1) has never been seen in the store before (RIS3) and where there is a lack of a sales assistant to give advice (RIS4). These results are in line with supporting literature, where emphasis on the lack of tangible cues makes shopping online more risky than the traditional brick and mortar setting (Rajamma et al., 2007). After initial inspection of the loading variables on this factor, REP3 was excluded due to the low loading criteria of 0.31. However, it was worth noting that REP3 which was positively correlated with the other variables in this factor, represents that consumers are more likely to purchase skin care online when the website also has a physical store and location, supporting the nature that the lack of tangible cues affects purchase behaviour (Omar, 1999).

The correlations among the variables observed in factor four reflect underlying processes that make up "Brand Reputation" which accounts for 6.26% of the explained variance, and is characterized by correlating items where a consumer is more likely to purchase skin care online when they are familiar with the brand (REP1) believe it to have a good reputation, and have had past positive experience with the website (REP 2 & REP 4). Furthermore, the website offers delivery between 3-5 working days (QOS4) and offers detailed information about the products they offer (QOS1), also the convenience of online shopping is an important attribute to the consumer (QOS10). The data generated supports the view that good consumer

experience with the brand positively influences the consumers trust (Ha, 2004) and that consumers agree that a larger company carries better capabilities of making sure their needs and wants are met (Jarvenpaa et al., 2000). Therefore, a good brand reputation can influence consumers' online trust and purchase intentions (Koufaris and Hampton-Sosa, 2004). Past research also confirms the view that consumer's value saving time and effort while shopping, and this plays a major part in the convenience motivation of shopping online (Bellenger and Korgaonkar, 1980; Eastlick and Feinberg, 1999).

The correlations among the variables observed in factor five reflect underlying processes that make up "Shopping enjoyment" accounting for 5.56% of the total variance, characterized by correlating items suggesting a consumer is more likely to purchase skin care online when the e vendor offers features that makes shopping enjoyable (QOS6) and easier (QOS5) and has an attractive design interface (DOW2). Furthermore, consumers would more likely purchase skin care online if browsing for the products was easy (DOW1) if convenience of online purchasing is important to them (QOS10) and the website offers delivery within 3-5 working days (QOS4). Past literature supports this data, for example Srinivasan et al, (2002) describes how the quality of the website directly affects online loyalty, where the e-quality is linked to the Ease of Use and enjoyment of technology found in the technology acceptance model (Davis, 1989).

The correlations among the variables observed in factor six reflect underlying processes that make up titled "Shopping motivations" and accounted for the lowest variance (4.62%) of the factors extracted from this data, characterized by correlating items suggesting that consumers are more likely to purchase skin care online when the website offers free samples to try with their purchase (QOS3), a free gift with purchase (QOS2) and when the site asks interactive questions about the consumers' needs (DOW3). These results suggest that users require a level of interaction when buying skin care online and will be motivated to purchase online when offered gifts in return for a purchase, confirming the view that online shopping motivations are positively related to online purchase intentions (Vazquez and Xu, 2008). However, the data showed that 3 items within the initial variable names Quality of service, did not load onto factors 1-6, but onto factor 7 which only represented 4.25% of the total variance. After further observing the factor analysis correlation matrix, QOS 7, QOS8 & QOS9 did not represent any high correlation scores (See table 6).

Table 6: Non-loading items

QOS7	when they offer a large variety of products
QOS8	if the website offers competitive deals against in store purchases
QOS9	if the website offers competitive prices against in store purchases

These results were unexpected for this research, suggesting that product variety, online deals and prices do not load significantly onto the factor describing shopping motivations. It would

have been assumed that these items would load onto factor 6 as research by Burke (2002) suggests consumers like to compare the prices sold online vs the nearest retail store in order to compare deals. However, it is worth noting that the mean values for QOS7= 2.44, QOS8= 1.73 & QOS9= 1.74, suggesting these may still be motivating factors, however consumers are not as motivated by money related deals as supposed to free product offerings.

4.4 Summary

The 6 factors extracted from the initial data are important to show what influences purchasing behaviour, of consumers buying skin care online. Based on the research findings and the factor analysis performed, it has been observed that the item variables that load on the named factor "Service Quality" are among the most important influencers of consumers' online shopping behaviour of skin care, with this factor accounting for the largest amount of variance, suggesting that building overall online trust in order to influence consumers to purchase skin care online is imperative. The other factors deduced from the analysis were website safety, Intangibility, Brand reputation, website interactivity and shopping motivations.

5. Conclusion

5.1 Introduction

The study of online consumer behaviour has been increasing in popularity among academics, attempting to develop and explore the frameworks linking information search and purchase intention (Vazquez and Xu, 2008). Research present in the literature, explores the notion that by increasing trust, consumers' attitudes towards the firm grows and so does their purchase intention (Gefen and Straub, 2004). This research project continues the exploration of online consumer behaviour when purchasing skin care, a market that has not yet been explored. The study sought to answer three of these questions:

1. How does trust in the brand influence the consumers' intention to purchase cosmetics online?
2. How does the lack of tangible cues affect consumers' perceived risk when buying cosmetics online?
3. What are the key motivators for consumers' purchase decisions for cosmetics online?

5.2 Theoretical implications

The factors extracted from the analysis, represent underlying processes that have created the correlations among the variables of online consumer behaviour when purchasing skincare. The correlations for each factor, indicate that a consumer who is more likely to purchase skin care online due to X, is also more likely to purchase skin care online due to Y & Z. The relationships between the variables loading on each factor contribute to the specific theme of that factor.

The factors extracted from the analysis show the main contributions to online consumer behaviour when purchasing skincare, listed in order of total variance and importance: Service Quality, Website Safety, Intangibility, Brand reputation, Website functions and shopping motivations. The underlying theme observed in the analysis, that links these factors together is the notion of online trust. Each factor contributes to building trust online, supported by the theoretical evidence, showing that the main reasons consumers choose not to purchase online is due to online security, reliabilities and reputation of company's and web site technology and interactivity (Gefen, 2000), whereby increasing the reliability of these functions will increase trust and purchase intention (Jarvenpaa and Tractinsky, 1999; Gefen and Staub, 2004). Furthermore, to understand how each factor relates directly to trust, for the purpose of the conclusion it is necessary to observe each factor individually.

Firstly, Service Quality observed correlations between items signifying the importance of how the online vendor operates and the quality of information and the facilities it can provide. Where supporting theories show that, increasing the service quality, increases consumer trust

(Harris and Goode, 2004). Another valuable conclusion drawn from this grouping of variables, is the nature in which consumers who are more likely to purchase skin care online after reading good reviews in blogs and magazines, strongly correlates with the opinions of consumers who are more likely to purchase online when the vendor keeps its promises. Therefore, quality of the information supplied and the promises to consumers made online, is essential for maintaining high levels of trust and can positively impact on brand attitude (Chen et al., 2008).

The factor titled website safety observed strong correlations between items relating to the security offered online in relation to personal information and entering payment details. This notion has been widely documented by researchers, explaining that privacy concerns are among the main worries consumers have when purchasing online (Wang et al., 1998). By providing a secure setting online, the risk of online purchase decreases and satisfaction and trust increase (Ha, 2004; Park and Kim, 2006).

Due to the intimate nature of skin care as a product and lack of research in this area, it was of interest to examine the effects of the lack of tangible cues online within the data analysis. Consequently, the third factor to emerge from the data showed correlations between items relating to a consumers inability to test and feel the items before purchase. It has been documented in the literature that the lack of tangible senses negatively infects purchase intention (Laroche et al., 2001). Although strong correlations were observed between the variables loading on this factor, it is worth noting that the four loading items had the lowest observed mean scores (although were still positively skewed) which was not an expected outcome for this paper. Furthermore, consumers who scored highly when they perceive it risky to buy cosmetics when there is lack of interaction with a sales assistant online, also score highly when asked interactive questions about specific needs.

It has been explored in previous studies that the notion of trust creates positive attitudes about how the firm will perform in the future, influencing loyalty and purchase intention (Gefen, 2000; Yoon, 2002). The fourth factor "Brand reputation" with correlations between items regarding familiarity and reputation/reliability of the brand, supports the theories present in the literature that a good brand reputation is a signal of a good product or service offered (Martin and Camarero, 2008; Doney and Cannon; 1997). The overall brand reputation can be a strong influence of a consumers' online trust and purchase intentions (Koufaris and Hampton-Sosa, 2004) supporting evidence necessary to conclude research question one.

The last two factors accounting for the least amount of variance relate to the functions the website offers to make shopping easier and more enjoyable, and what can motivate a consumer to purchase their skin care online. Consumers consider interactive features that make purchasing and browsing more enjoyable and easier to perform to be important attributes to website interactivity. This theory is largely supported by research showing the quality of the website directly affects online loyalty, where the e-quality is linked to the Ease

of Use and enjoyment of technology found in the technology acceptance model (TAM) (Davis, 1989; Srinivasan et al, 2002). Lastly, shopping motivations showed correlations between items in relation to offerings at the time of purchase, and interactivity allowing more customized product information. This research suggests that in order to motivate a consumer to purchase online as supposed to a brick and mortar setting, product samples and free gifts are among the most effective. However, the evidence is not necessarily supportive of past theories relating to price and variety seeking as motivations, were Burke (2002) examined that consumers want to know the prices sold online vs the nearest retail store to compare deals. Therefore, it is of academic interest to look further into the motivating factors as a reason for consumers to purchase skin care online.

5.3 Summary

Previous studies have identified that increasing trust is imperative to building good online relationships with consumers (Gefen, 2000; Jarvenpaa and Tractinsky, 1999; Jarvenpaa et al., 2000; McKnight et al., 2002) and reduces the uncertainty often found in situations purchasing online (Gefen, 2000). This paper represents an empirical examination of the factors influencing consumers online purchase behaviour of skincare, where existing theories present in the literature, were incorporated into a more industry specific study, answering the 3 questions set out initially by the author.

6. Recommendations

6.1 Introduction

The findings present in this research have agreed with existing theoretical assumptions present within the literature regarding consumer behaviour online. Academically this research has broadened the knowledge within the field of consumer online behaviour and the factors that have the most implications on purchase intention, within the skin care market. Findings that emerged from this paper narrowed down a large number of variables into more significant factors, which show what areas need to be considered to improve consumer purchase intention. The research data suggests that the main contributions to online consumer behaviour when purchasing skin care are, Service Quality, Website Safety, Intangibility, Brand reputation, Website functions and shopping motivations. This contribution to the literature, will enable academics to further investigate these factors as the main underlying concepts affecting consumer behaviour online when purchasing skincare. The most noticeable notion among these factors that emerged, is the common element of building and maintaining online trust. Each factor extracted from the data has empirical evidence to support the theory that by increasing the service quality (for example), trust will also increase.

6.2 Managerial implications

From a managerial perspective, the importance of creating a trustworthy environment is imperative for maintaining loyalty and increasing consumer purchase intentions. Mangers should be aware that the quality of information they are supplying and the facilities they can offer and deliver, without letting consumers down is of great importance. This includes offering reliable product information, and delivering items within 3-5 working days. The environment which consumers are purchasing from needs to keep consumer details and payments safe, reducing the risk that most consumers face when purchasing online. A significant piece of data emerging from this research is the concept where by, risk can be alleviated by providing interactive features online. It should be assumed that each consumer will have different skin care needs, online vendors should explore the notion of offering their customers interactive features that asks questions about individual specific needs, mitigating risk due to lack of tangible cues associated with shopping online. The design of the website needs to reflect the brand and should have a modern and professional design. Managers should also aim to make sure the brand has a strong reputation both online and offline, as consumers will be encouraged to shop in the online store when they have had previous positive experience in the offline store. Furthermore, in order to motivate consumers to buy their cosmetics online, online vendors should seek offering samples and free gifts with any purchase, as supposed to money off deals and buy one get one free deals. Demographic evidence also touched on the notion that younger consumers who read product reviews in blogs are more likely to purchase skin care online, giving important insights into how online

vendors can reach different consumer groups, where recommendations may occur in targeting younger audiences via online communities.

6.3 Recommendations for future research

The nature of this research provides an exploratory conclusion that can delved into with more detail to produce more conclusive findings. The data that emerged can be used as a foundation for further research in the field of online consumer behaviour and the skincare market. Firstly, the demographic data from this study produced an underwhelming amount of male respondents, and therefore comparisons on specific gender differences could not be made adequately. The male skin care market is one of interest maintaining a steady growth of 2% each year (Euromonitor, 2014). Testing this research on genders separately will gain more conclusive results useful for mangers to target different audiences. To further improve this study and the reliability of the conclusion, it is recommended that a larger sample be tested, representing a larger portion of the target population. Unfortunately, due to time and money constraints, only 109 participants were yielded for data analysis, when a sample of 200 or more is ideal for use in a factor analysis (Tabachnik and Fidel, 1996).

This body of research produced evidence to suggest that a younger demographic audience would be more likely to purchase skin care online when they have read good reviews in blogs. Blogging as a concept is still a relatively new research area and has not been examined yet in detail, however evidence is present among the literature to suggest that building trust via Virtual communities can positively impact on consumer purchase intention (Lu et al., 2009). Further research around the influence of online communities, blogging and purchase intention could provide useful insights for managers and how to communicate to future markets. This research focused purely on the skincare market, however within the cosmetics industry there are also other areas where there is limited research on online consumer behaviour specific to that market, such as colour, makeup and electronic cosmetics. Conducting research on these areas in the market could produce evidence to link the whole industry together as supposed to just touching on one area.

6.4 Summary

Finally, the research question defining the construct of this paper has been answered, where the factors influencing consumers online purchase behaviour of skincare have been identified via a factor analysis. The recommendations drawn from the findings of this research offer valuable points to consider for future research projects and valuable insights into online behaviour when purchasing skincare. As this paper was exploratory in nature, the factors extracted from the analysis can form as a ground work for further studies specifically looking into the skin care market.

7. References

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8. Appendices

*Appendix 1: Survey questionnaire instrument**

*The instrument was measured using a five point Likert scale for each of the 34 items, from strongly agree to strongly disagree

1. **I am more likely to purchase skin care online**

REP 1: if I am familiar with the brand

REP 2: if the brand has a good reputation

REP 3: if the brands website also has a physical store and location

REP 4: if the brand is from a website I have had positive previous experience with

2. **I am more likely to purchase skin care online**

WAR 1: if the website offers a clear returns policy

WAR 2: if the website offers a clear warranty

WAR 3: if the website offers the facility to return the product in store

3. **I am more likely to purchase skin care online**

SEC 1: if the website has a privacy policy regarding disclosure of customer information

SEC 2: when I feel safe entering my personal information

SEC 3: when I do not think my details are being used to be transferred to third parties

SEC 4: when I feel secure about making an electronic payment on the website

4. **I am more likely to purchase skin care online**

QOS 1: when the website provides detailed information about products offered

QOS 2: if the website offers a free gift with purchase

QOS 3: if the website offers samples to try with my purchase

QOS 4: if the website offers delivery within 3-5 working days

QOS 5: if the website offers interactive features that make shopping easier

QOS 6: if the website offers interactive features that make shopping enjoyable

QOS 7: when they offer a large variety of products

QOS 8: if the website offers competitive deals against in store purchases

QOS 9: if the website offers competitive prices against in store purchases

5.

QOS 10: Convenience of purchasing skin care online is important to me

6. **I am more likely to purchase skin care online**

DOW 1: if the website makes browsing for products easy

DOW 2: if the website has an attractive, modern and professional design

DOW 3: when I am asked interactive questions about my specific needs

7. **I am more likely to purchase skin care online**

TRU 1: if I think the website keeps its promises regarding quality of its products

TRU 2: if I think the website keeps its promises regarding the offered delivery times

TRU 3: if I think I can trust the website

TRU 4: if I think this website operates in an ethical manner

TRU 5: when I have heard good reviews about a product in magazines

TRU 6: when I have heard good reviews about a product in blogs

8. **I am less likely to purchase skin care online**

RIS 1: that I have never felt the texture of before

RIS 2: that I have never smelt before

RIS 3: that I have never seen in the physical store before

RIS 4: due to the lack of interaction with a sales assistant

Appendix 2: Codebook and SPSS instructions

Variable	SPSS variable name	Coding instructions
Sex	sex	1= Female
		2= Male
Age	age	1= <18
		2= 18-29
		3= 30-44
		4= 45-59
		5= 60>
Education	Edu	1= Less than high school degree
		2= High school degree or equivalent
		3= College or A level degree
		4= Undergraduate degree
		5= Postgraduate degree
		6= Doctorate
Years using the internet	YearInt	1= Less than 1 year
		2= 1-3 years
		3= 4-7 years
		4= 7> years
Experience on the computer	Compexp	1= Novice
		2= Novice +1
		3= Novice +2
		4= Intermediate
		5= Expert -1
		6= Expert -2
		7= Expert
Experience on the internet	Intexp	1= Novice
		2= Novice +1
		3= Novice +2
		4= Intermediate
		5= Expert -1
		6= Expert -2
		7= Expert
All 34 items have the same coding instructions		
Reputation 1	REP1	1= Strongly Agree
Reputation 2	REP2	2= Agree
Reputation 3	REP3	3= Neither agree or disagree
Reputation 4	REP4	4= Disagree
Warranty 1	WAR1	5= Strongly Disagree

Warranty 2	WAR2	
Warranty 3	WAR1	
Security and privacy 1	SEC1	
Security and privacy 2	SEC2	
Security and privacy 3	SEC3	
Security and privacy 4	SEC4	
Quality of Service 1	QOS1	
Quality of Service 2	QOS2	
Quality of Service 3	QOS3	
Quality of Service 4	QOS4	
Quality of Service 5	QOS5	
Quality of Service 6	QOS6	
Quality of Service 7	QOS7	
Quality of Service 8	QOS8	
Quality of Service 9	QOS9	
Quality of Service 10	QOS10	
Design of Website 1	DOW1	
Design of Website 2	DOW2	
Design of Website 3	DOW3	
Trust 1	TRU1	
Trust 2	TRU2	
Trust 3	TRU3	
Trust 4	TRU4	
Trust 5	TRU5	
Trust 6	TRU6	
Risk 1	RIS1	
Risk 2	RIS2	
Risk 3	RIS3	
Risk 4	RIS4	

Appendix 3: Descriptive statistics demographic data

Sex

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**1 Female**	90	88.2	88.2	88.2
	2 Male	12	11.8	11.8	100.0
	Total	102	100.0	100.0	

Age

		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**2 18-29**	39	38.2	38.2	38.2
	3 30-44	23	22.5	22.5	60.8
	4 45-59	35	34.3	34.3	95.1
	5 >60	5	4.9	4.9	100.0
	Total	102	100.0	100.0	

Education					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**1 Less than high school degree**	1	1.0	1.0	1.0
	2 High school degree or equivalent (e.g.GSCEs)	4	3.9	3.9	4.9
	3 College or A level degree	27	26.5	26.5	31.4
	4 Undergraduate degree	33	32.4	32.4	63.7
	5 Postgraduate degree	34	33.3	33.3	97.1
	6 Doctorate	3	2.9	2.9	100.0
	Total	102	100.0	100.0	

Years spent using internet					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**3 4-7 years**	13	12.7	12.7	12.7
	4 >7 years	89	87.3	87.3	100.0
	Total	102	100.0	100.0	

Experience on computer					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**2 Nov+1**	1	1.0	1.0	1.0
	3 Nov+2	6	5.9	5.9	6.9
	4 Intermediate	23	22.5	22.5	29.4
	5 Exp-2	33	32.4	32.4	61.8
	6 Exp-1	39	38.2	38.2	100.0
	Total	102	100.0	100.0	

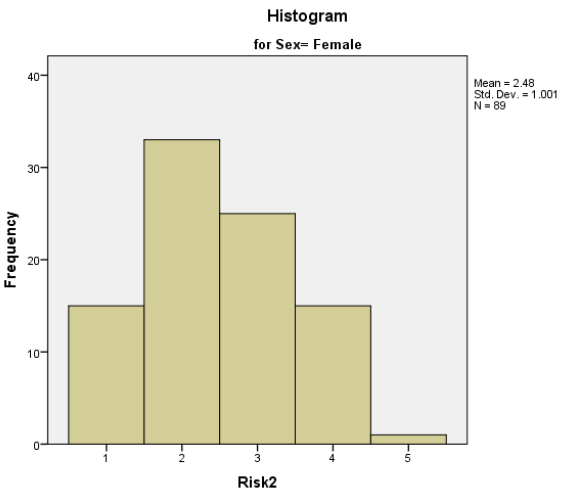
Experience on internet					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**3 Nov+2**	6	5.9	5.9	5.9
	4 Intermediate	12	11.8	11.8	17.6
	5 Exp-2	35	34.3	34.3	52.0
	6 Exp-1	49	48.0	48.0	100.0
	Total	102	100.0	100.0	

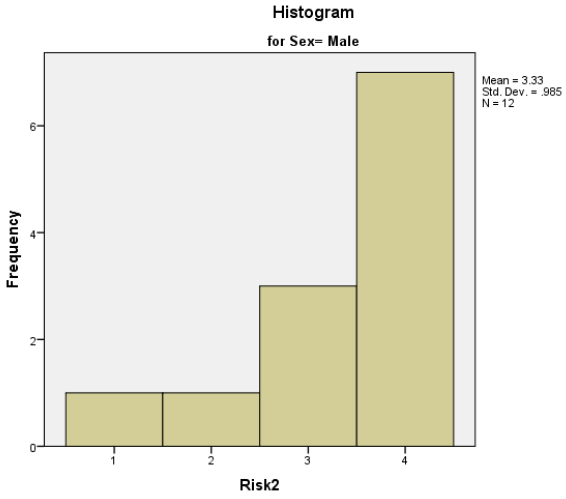
Appendix 4: Descriptive statistics checking for errors

Descriptive Statistics							
	Number Statistic	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
REP1	102	1	5	1.88	.978	1.147	.723
REP2	102	1	5	1.90	.873	1.194	1.614
REP3	102	1	5	2.30	.993	.653	-.109
REP4	102	1	5	1.98	.783	1.043	2.095
WAR1	102	1	5	2.21	.988	.577	-.358
WAR2	102	1	5	2.53	.992	.258	-.533
WAR1	102	1	5	2.15	1.028	.758	-.055
SEC1	102	1	5	2.30	1.022	.377	-.484
SEC2	102	1	5	1.69	.867	1.496	2.359
SEC3	102	1	5	1.69	.890	1.439	1.934
SEC4	102	1	5	1.44	.725	2.273	6.907
QOS1	102	1	5	1.88	.871	1.058	1.224
QOS2	102	1	4	2.49	1.012	-.002	-1.077
QOS3	102	1	4	2.29	.960	.264	-.849
QOS4	102	1	4	1.91	.810	.849	.617
QOS5	102	1	4	2.26	.889	.312	-.571
QOS6	102	1	4	2.38	.879	.144	-.640
QOS7	102	1	4	2.44	.950	-.005	-.906
QOS8	102	1	4	1.73	.720	.791	.505
QOS9	102	1	4	1.74	.730	.769	.355
QOS10	102	1	5	2.39	.997	.304	-.682
DOW1	102	1	4	1.73	.677	.789	1.062
DOW2	102	1	4	1.83	.691	.600	.601
DOW3	102	1	5	2.59	.968	.112	-.733
TRU1	102	1	4	1.76	.773	1.092	1.400
TRU2	102	1	4	1.86	.732	.839	1.150

TRU3	102	1	5	1.70	.876	1.629	3.234
TRU4	102	1	4	2.00	.879	.714	-.026
TRU5	102	1	4	2.01	.814	.543	-.086
TRU6	102	1	5	2.27	.903	.331	-.216
RIS1	102	1	4	2.48	.992	.148	-1.008
RIS2	102	1	5	2.57	1.039	.083	-.974
RIS3	102	1	5	2.52	.972	.241	-.698
RIS4	102	1	5	3.13	1.012	-.027	-.439

Appendix 5: RIS2, Female vs Male





Appendix 6: New collapsed categories demographics

Age New					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**2 18-29**	39	38.6	38.6	38.6
	3 30-44	22	21.8	21.8	60.4
	4 >45	40	39.6	39.6	100.0

Education new					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**1 Up to Alevels/College degree**	31	30.7	30.7	30.7
	2 Undergraduate degree	33	32.7	32.7	63.4
	3 Postgraduate degree	37	36.6	36.6	100.0

Computer experience new					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**1 Novice**	7	6.9	6.9	6.9
	2 Intermediate	22	21.8	21.8	28.7
	3 Expert	72	71.3	71.3	100.0

Internet experience new					
		Frequency	Percent (%)	Valid Percent (%)	Cumulative Percent (%)
Valid	**1 Novice**	6	5.9	5.9	5.9
	2 Intermediate	11	10.9	10.9	16.8
	3 Expert	84	83.2	83.2	100.0

Appendix 7: Trimmed Mean

Descriptives with trimmed mean				
			Statistic	Std. Error
Reputation1	Mean		1.88	.097
	95% Confidence Interval for Mean	Lower Bound	1.69	
		Upper Bound	2.07	
	5% Trimmed Mean		1.80	
Reputation2	Mean		1.90	.086
	95% Confidence Interval for Mean	Lower Bound	1.73	
		Upper Bound	2.07	
	5% Trimmed Mean		1.82	
Reputation3	Mean		2.30	.098
	95% Confidence Interval for Mean	Lower Bound	2.11	
		Upper Bound	2.50	
	5% Trimmed Mean		2.26	
Reputation4	Mean		1.98	.078
	95% Confidence Interval for Mean	Lower Bound	1.83	
		Upper Bound	2.13	
	5% Trimmed Mean		1.91	
Warrenty1	Mean		2.21	.098
	95% Confidence Interval for Mean	Lower Bound	2.01	
		Upper Bound	2.40	
	5% Trimmed Mean		2.16	
Warrenty2	Mean		2.53	.098
	95% Confidence Interval for Mean	Lower Bound	2.33	
		Upper Bound	2.72	
	5% Trimmed Mean		2.51	
Warrenty3	Mean		2.15	.102
	95% Confidence Interval for Mean	Lower Bound	1.95	
		Upper Bound	2.35	
	5% Trimmed Mean		2.09	
Security and Privacy1	Mean		2.30	.101
	95% Confidence Interval for Mean	Lower Bound	2.10	
		Upper Bound	2.50	
	5% Trimmed Mean		2.26	
Security and Privacy2	Mean		1.69	.086
	95% Confidence Interval for Mean	Lower Bound	1.52	
		Upper Bound	1.86	
	5% Trimmed Mean		1.58	
	Mean		1.69	.088

Security and Privacy3	95% Confidence Interval for Mean	Lower Bound	1.51	
		Upper Bound	1.86	
	5% Trimmed Mean		1.58	
Security and Privacy4	Mean		1.44	.072
	95% Confidence Interval for Mean	Lower Bound	1.30	
		Upper Bound	1.58	
	5% Trimmed Mean		1.34	
Quality of Service1	Mean		1.88	.086
	95% Confidence Interval for Mean	Lower Bound	1.71	
		Upper Bound	2.05	
	5% Trimmed Mean		1.80	
Quality of Service2	Mean		2.49	.100
	95% Confidence Interval for Mean	Lower Bound	2.29	
		Upper Bound	2.69	
	5% Trimmed Mean		2.49	
Quality of Service3	Mean		2.29	.095
	95% Confidence Interval for Mean	Lower Bound	2.11	
		Upper Bound	2.48	
	5% Trimmed Mean		2.27	
Quality of Service4	Mean		1.91	.080
	95% Confidence Interval for Mean	Lower Bound	1.75	
		Upper Bound	2.07	
	5% Trimmed Mean		1.85	
Quality of Service5	Mean		2.26	.088
	95% Confidence Interval for Mean	Lower Bound	2.09	
		Upper Bound	2.44	
	5% Trimmed Mean		2.24	
Quality of Service6	Mean		2.38	.087
	95% Confidence Interval for Mean	Lower Bound	2.21	
		Upper Bound	2.56	
	5% Trimmed Mean		2.37	
Quality of Service7	Mean		2.44	.094
	95% Confidence Interval for Mean	Lower Bound	2.25	
		Upper Bound	2.63	
	5% Trimmed Mean		2.43	
Quality of Service8	Mean		1.73	.071
	95% Confidence Interval for Mean	Lower Bound	1.58	
		Upper Bound	1.87	
	5% Trimmed Mean		1.67	
Quality of Service9	Mean		1.74	.072
	95% Confidence Interval for Mean	Lower Bound	1.59	
		Upper Bound	1.88	

	5% Trimmed Mean		1.68	
Quality of Service10	Mean		2.39	.099
	95% Confidence Interval for Mean	Lower Bound	2.20	
		Upper Bound	2.59	
	5% Trimmed Mean		2.37	
Design of Website1	Mean		1.73	.067
	95% Confidence Interval for Mean	Lower Bound	1.59	
		Upper Bound	1.86	
	5% Trimmed Mean		1.67	
Design of Website2	Mean		1.83	.068
	95% Confidence Interval for Mean	Lower Bound	1.70	
		Upper Bound	1.97	
	5% Trimmed Mean		1.79	
Design of Website3	Mean		2.59	.096
	95% Confidence Interval for Mean	Lower Bound	2.40	
		Upper Bound	2.78	
	5% Trimmed Mean		2.59	
Trust1	Mean		1.76	.077
	95% Confidence Interval for Mean	Lower Bound	1.61	
		Upper Bound	1.92	
	5% Trimmed Mean		1.68	
Trust2	Mean		1.86	.072
	95% Confidence Interval for Mean	Lower Bound	1.72	
		Upper Bound	2.01	
	5% Trimmed Mean		1.80	
Trust3	Mean		1.70	.087
	95% Confidence Interval for Mean	Lower Bound	1.52	
		Upper Bound	1.87	
	5% Trimmed Mean		1.59	
Trust4	Mean		2.00	.087
	95% Confidence Interval for Mean	Lower Bound	1.83	
		Upper Bound	2.17	
	5% Trimmed Mean		1.94	
Trust5	Mean		2.01	.081
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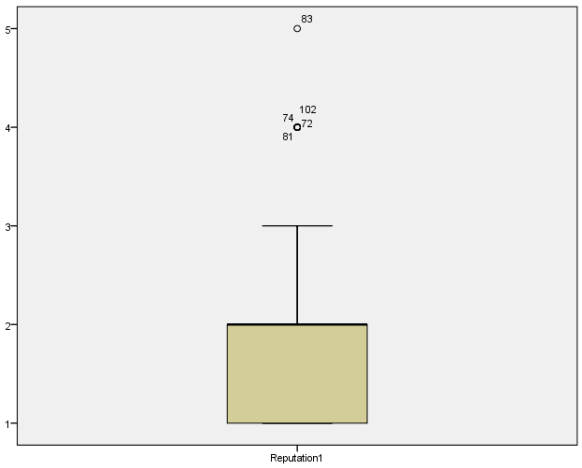
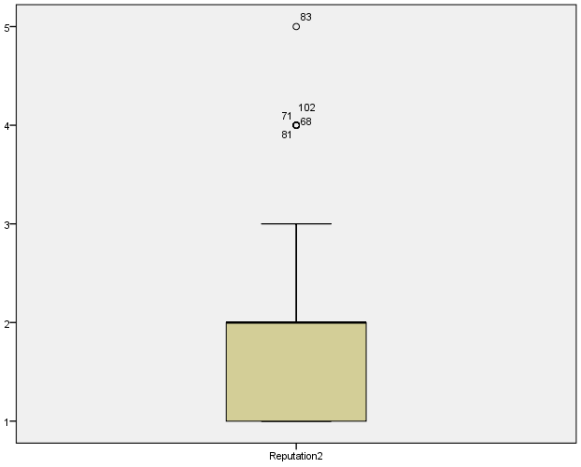
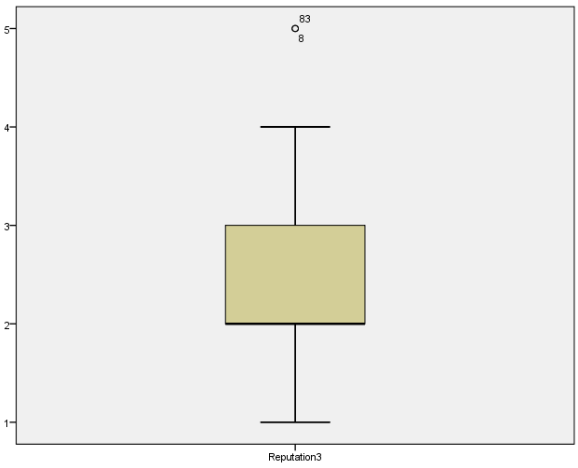
		Upper Bound	2.17	
	5% Trimmed Mean		1.96	
Trust6	Mean		2.27	.089
	95% Confidence Interval for Mean	Lower Bound	2.10	
		Upper Bound	2.45	
	5% Trimmed Mean		2.24	
Risk1	Mean		2.48	.098

	95% Confidence Interval for Mean	Lower Bound	2.29	
		Upper Bound	2.68	
	5% Trimmed Mean		2.48	
Risk2	Mean		2.57	.103
	95% Confidence Interval for Mean	Lower Bound	2.36	
		Upper Bound	2.77	
	5% Trimmed Mean		2.57	
Risk3	Mean		2.52	.096
	95% Confidence Interval for Mean	Lower Bound	2.33	
		Upper Bound	2.71	
	5% Trimmed Mean		2.51	
Risk4	Mean		3.13	.100
	95% Confidence Interval for Mean	Lower Bound	2.93	
		Upper Bound	3.33	
	5% Trimmed Mean		3.14	

Appendix 8: Box Plots (Screening for Outliers)



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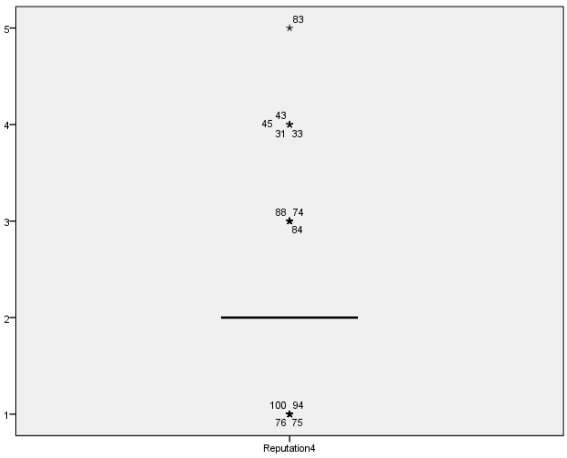
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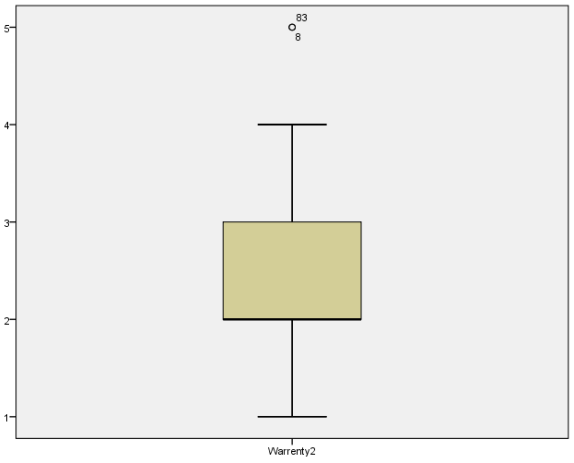
76
75
Reputation4


Warrenty1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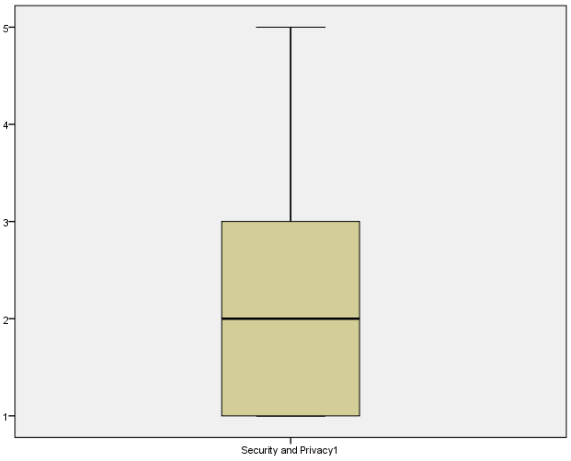
Warrenty3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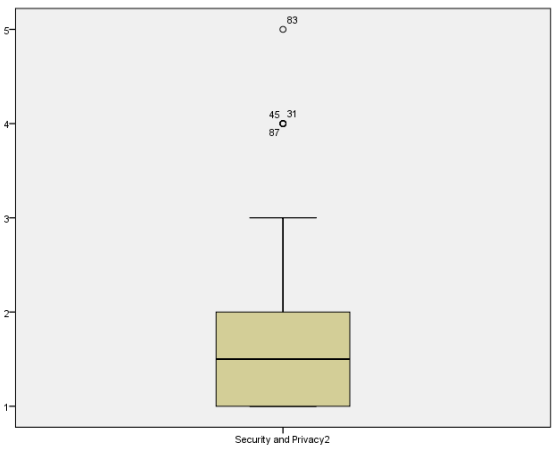
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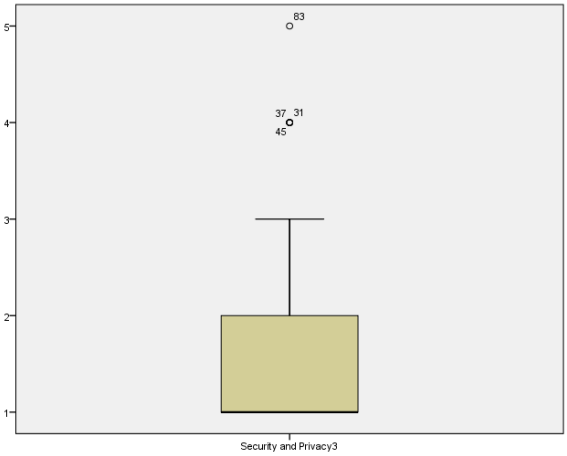
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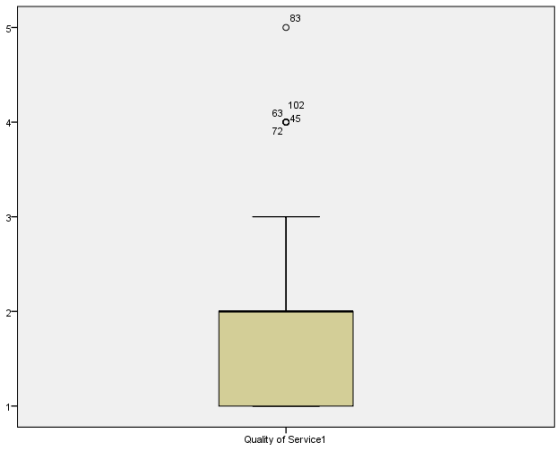
Security and Privacy3


83
45 31
Security and Privacy4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63 102
45
72
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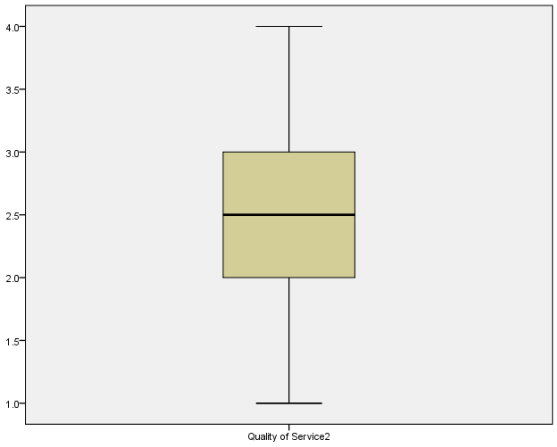
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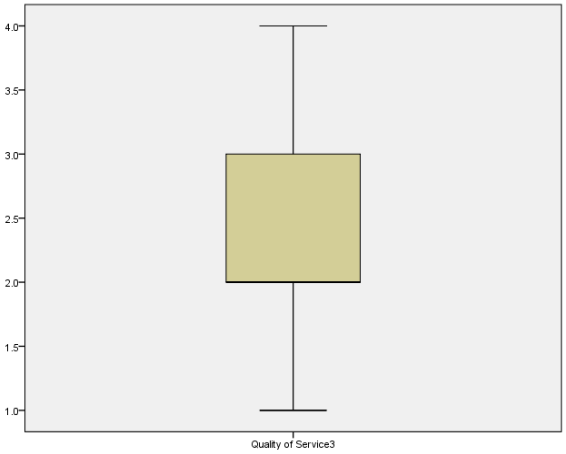
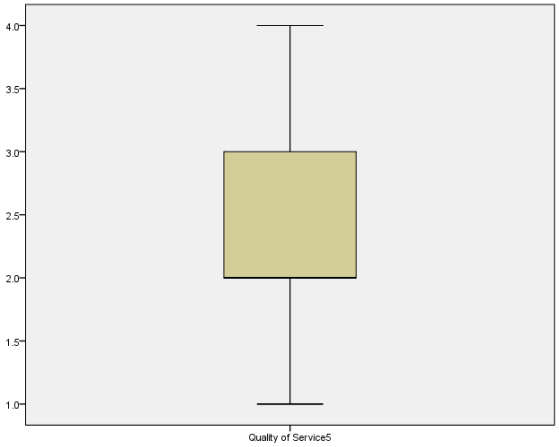

Quality of Service3


56102 71
63
Quality of Service4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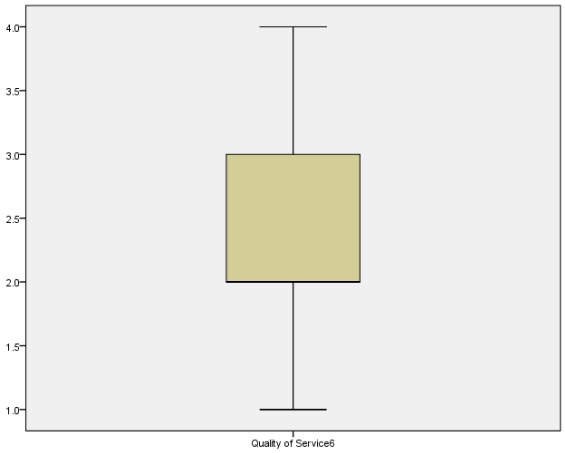
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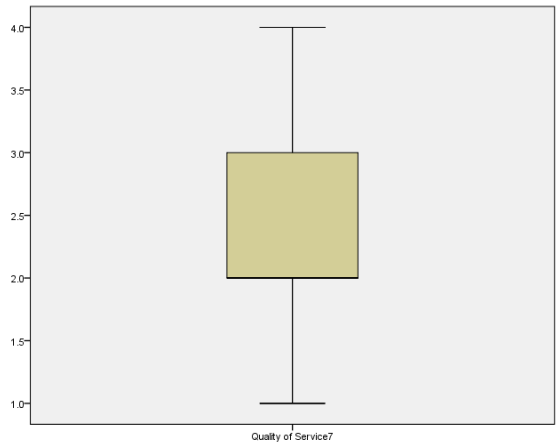
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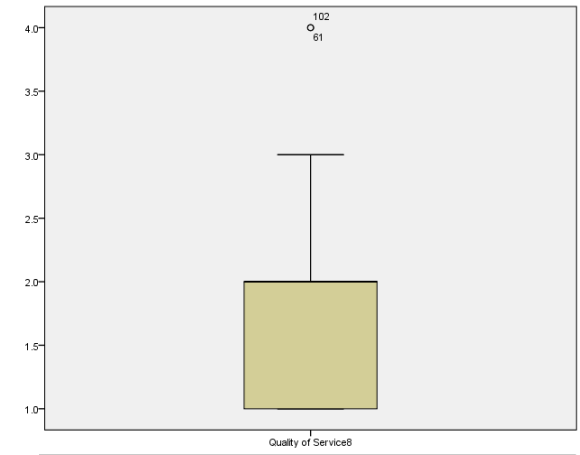
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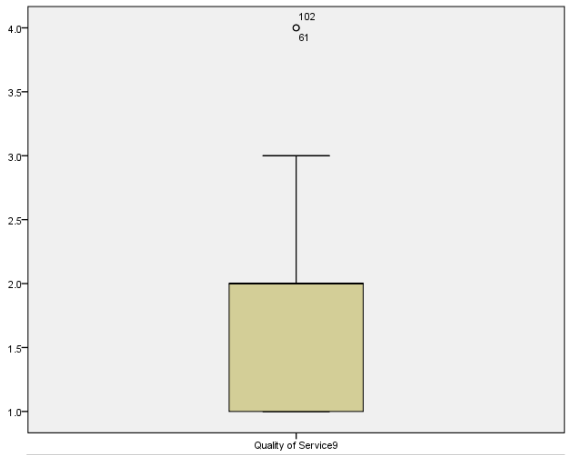
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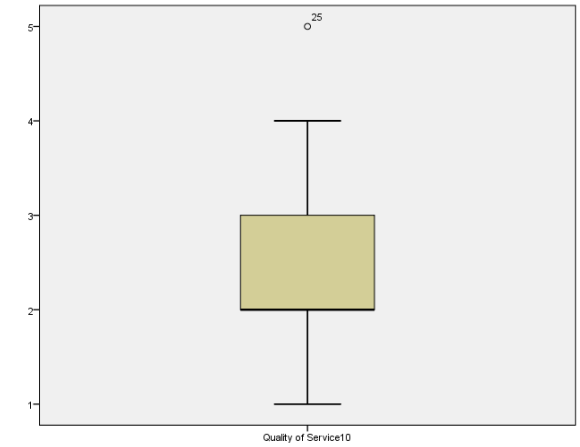
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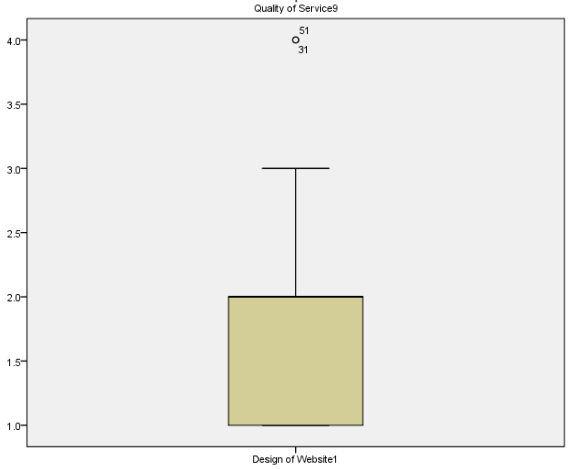
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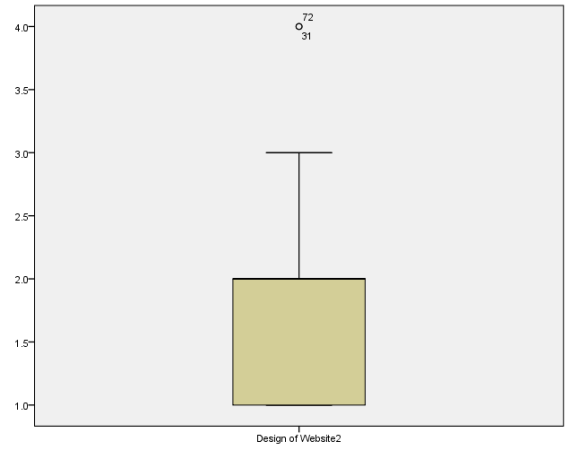
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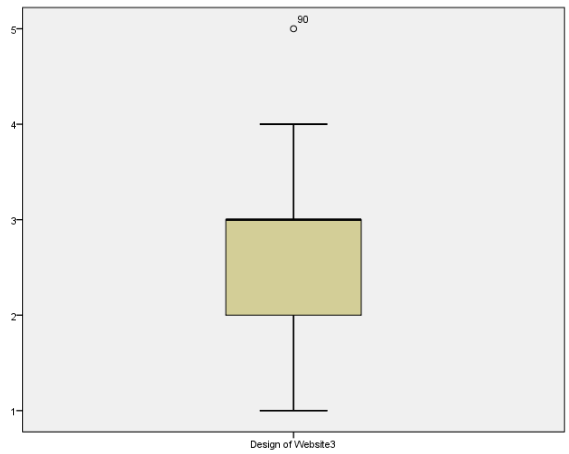
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2
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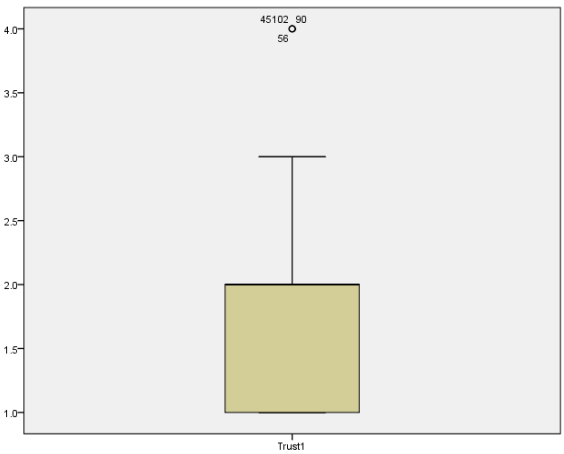
Design of Website3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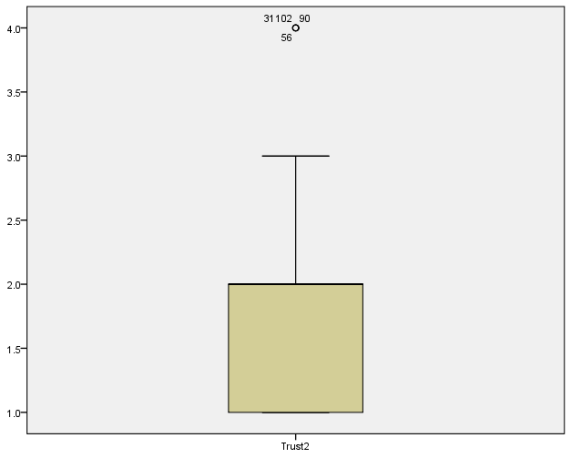
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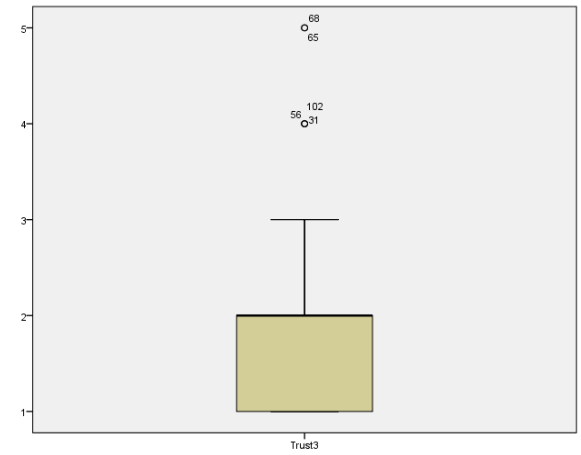
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31
Trust3


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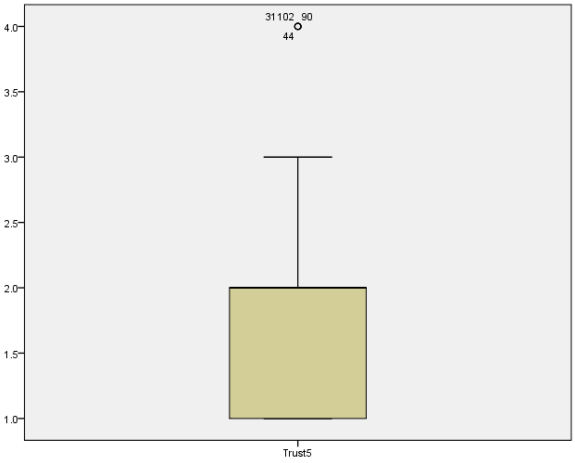
Trust4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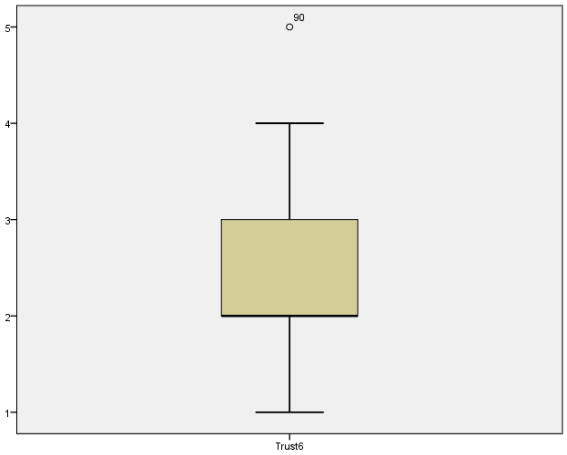
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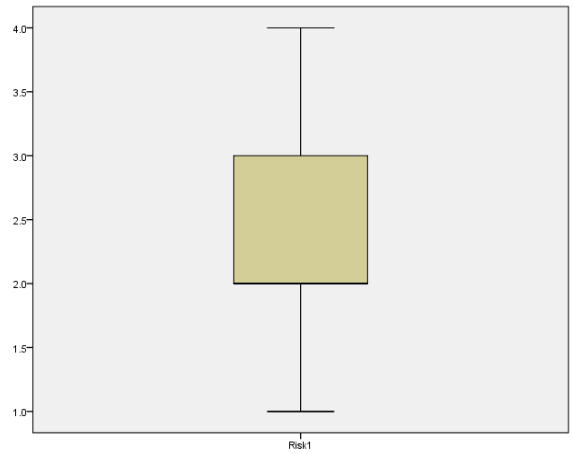
Trust6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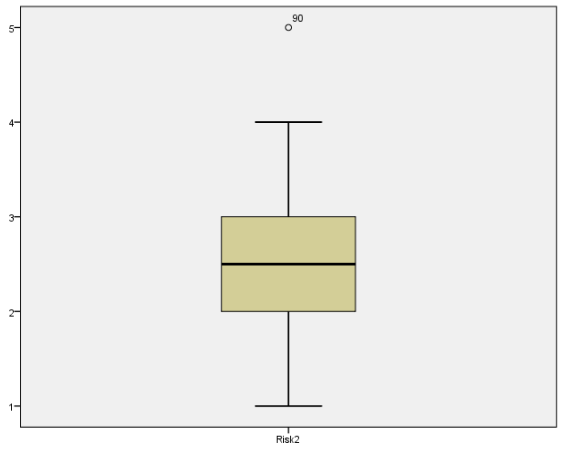
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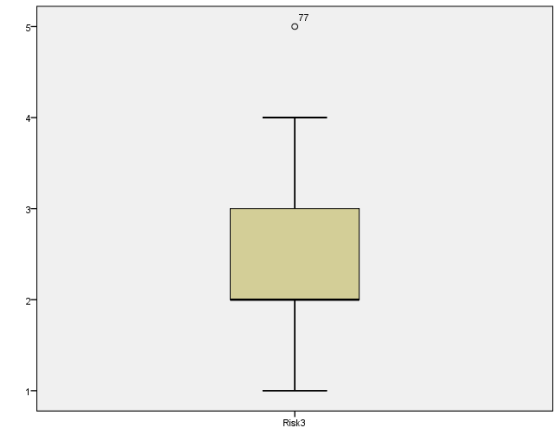
Risk2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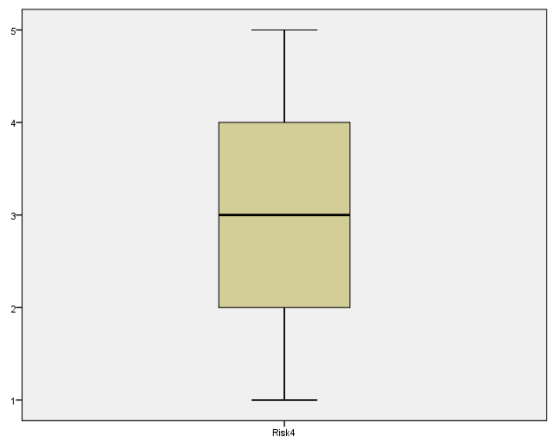

Risk4

Appendix 9: Correlation Matrix using Spearman's rho

	Age New	Edunew	Compexpnew	Intexpnew	REP1	REP2	REP3	REP4	WAR1	WAR2	WAR3	SEC1	SEC2	SEC3	SEC4	QOS1	QOS2	QOS3
AgeNew	1.000																	
Edunew	-.051	1.000																
Compexpnew	-.279**	.282**	1.000															
Intexpnew	-.234*	.243*	.735**	1.000														
REP1	.130	-.080	-.196*	-.080	1.000													
REP2	.050	-.001	-.107	.028	.591**	1.000												
REP3	.081	.158	.092	.058	.189	.088	1.000											
REP4	.078	.108	-.059	.023	.310**	.339**	.230*	1.000										
WAR1	-.102	.011	.035	.023	.313**	.304**	.175	.142	1.000									
WAR2	-.260**	.092	.136	.084	.122	.119	.197*	.177	.654**	1.000								
WAR3	-.015	.032	.060	-.005	.079	.073	.384**	.252*	.424**	.516**	1.000							
SEC1	-.126	.139	.019	.054	.172	.148	-.001	.137	.414**	.413**	.262**	1.000						
SEC2	.051	-.103	-.047	-.013	.360**	.364**	.019	.280**	.541**	.302**	.320**	.596**	1.000					
SEC3	.062	-.004	-.035	.028	.298**	.359**	.080	.154	.469**	.311**	.263**	.630**	.806**	1.000				
SEC4	.121	-.107	-.123	-.011	.354**	.339**	.078	.249*	.416**	.251*	.244*	.469**	.733**	.696**	1.000			
QOS1	-.013	.008	-.010	.032	.362**	.172	-.088	.157	.308**	.300**	.000	.252*	.222*	.170	.286**	1.000		
QOS2	-.033	-.083	.078	.002	-.076	-.028	.177	.098	.165	.305**	.352**	.380**	.170	.067	.135	.055	1.000	
QOS3	-.035	-.076	.078	.045	-.025	-.031	.097	.012	.246*	.363**	.364**	.455**	.252*	.152	.198*	.094	.780**	1.000
QOS4	.168	.040	.105	.049	.127	.032	.159	.136	.181	.207*	.256**	.251*	.225*	.227*	.277**	.281**	.204*	.245*
QOS5	-.017	.169	.084	-.017	.090	.143	.082	.263**	.276**	.334**	.221*	.379**	.268**	.238*	.218*	.233*	.278**	.309**
QOS6	-.013	.207*	.095	-.032	-.032	.015	.012	.125	.192	.240*	.155	.396**	.214*	.238*	.168	.088	.203*	.272**
QOS7	.084	.216*	.064	-.062	-.002	.040	.221*	.190	.064	.018	.107	.171	.174	.120	.108	.000	.211*	.201*
QOS8	.097	-.048	.040	.009	.271**	.247*	.124	.279**	.157	.081	.182	.040	.299**	.191	.361**	.200*	.067	.149
QOS9	.084	-.079	-.043	-.145	.278**	.295**	.168	.182	.187	.158	.257**	-.016	.275**	.212*	.349**	.151	.060	.106
QOS10	.041	-.022	-.131	-.082	.310**	.320**	-.014	.257**	.182	.117	.042	.062	.100	.094	.158	.126	.086	.113
DOW1	.063	.057	.141	.128	.322**	.262**	-.085	.066	.211*	.103	-.052	.245*	.283**	.322**	.318**	.430**	-.071	-.032
DOW2	.069	.160	-.083	-.065	.192	.132	.042	.129	.210*	.179	.003	.124	.126	.124	.172	.285**	.065	.095
DOW3	.174	.225*	.097	.040	.038	.115	.223*	.164	.066	.204*	.176	.176	.035	.050	.060	-.023	.305**	.370**
TRU1	.098	-.028	-.004	.037	.333**	.303**	.086	.260**	.368**	.201*	.201*	.313**	.405**	.342**	.403**	.359**	.254*	.271**
TRU2	.062	.045	.048	.045	.363**	.180	.047	.230*	.307**	.156	.137	.222*	.375**	.318**	.290**	.325**	.063	.052
TRU3	.055	-.056	.062	.080	.335**	.192	.025	.201*	.247*	.112	.019	.233*	.400**	.264**	.473**	.387**	-.009	.090
TRU4	-.074	.025	.047	.059	.174	.120	-.136	.184	.223*	.176	-.050	.379**	.318**	.240*	.262**	.258**	.103	.232*
TRU5	.126	.154	-.010	-.057	.272**	.174	.071	.243*	.150	.096	-.051	.141	.186	.122	.169	.376**	.159	.167
TRU6	.301**	.138	-.053	-.032	.206*	.103	.071	.215*	.107	.095	-.036	.030	.121	.109	.094	.197*	.024	-.028
RIS1	-.105	.125	.185	.227*	-.050	-.039	.361**	.177	.165	.214*	.118	.063	-.107	-.076	-.091	.006	.105	.083
RIS2	-.221*	.061	.129	.257**	.015	.003	.288**	.169	.175	.174	.093	.164	-.064	-.014	-.005	.030	.081	.042
RIS3	-.173	.192	.134	.102	-.027	-.141	.454**	.142	.140	.128	.130	.106	.001	-.004	-.012	-.062	.059	-.016
RIS4	-.191	.291**	.169	.209*	-.140	-.212*	.046	-.028	.017	.192	.063	.281**	-.088	-.009	-.162	-.035	.088	.118

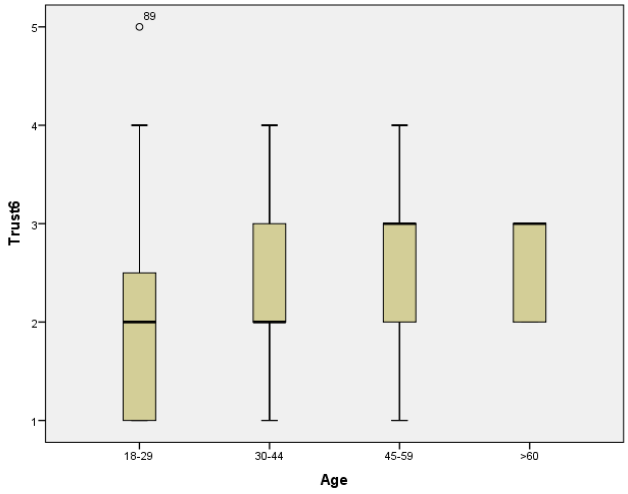
*** Correlation is significant at the 0.01 level (2-tailed)*

** Correlation is significant at the 0.05 level (2-tailed)*

(Continued on next page)

	QOS4	QOS5	QOS6	QOS7	QOS8	QOS9	QOS10	DOW1	DOW2	DOW3	TRU1	TRU2	TRU3	TRU4	TRU5	TRU6	RIS1	RIS2	RIS3	RIS4
AgeNew																				
Edunew																				
Compexpnew																				
Intexpnew																				
REP1																				
REP2																				
REP3																				
REP4																				
WAR1																				
WAR2																				
WAR3																				
SEC1																				
SEC2																				
SEC3																				
SEC4																				
QOS1																				
QOS2																				
QOS3																				
QOS4	1.000																			
QOS5	.304**	1.000																		
QOS6	.247*	.800**	1.000																	
QOS7	-.032	.230*	.276**	1.000																
QOS8	.185	.275**	.160	.423**	1.000															
QOS9	.149	.262**	.146	.311**	.863**	1.000														
QOS10	.252*	.203*	.195	-.006	.032	.148	1.000													
DOW1	.337**	.338**	.289**	.138	.272**	.275**	.381**	1.000												
DOW2	.216*	.274**	.307**	.137	.176	.235*	.360**	.477**	1.000											
DOW3	.135	.341**	.395**	.249*	.036	.105	.172	.116	.254*	1.000										
TRU1	.322**	.404**	.333**	.128	.236*	.239*	.385**	.464**	.477**	.345**	1.000									
TRU2	.446**	.360**	.231*	.112	.270**	.255**	.300**	.425**	.425**	.165	.705**	1.000								
TRU3	.368**	.304**	.301**	.125	.257**	.197*	.200*	.390**	.406**	.268**	.649**	.631**	1.000							
TRU4	.151	.315**	.265**	.242*	.160	.080	.166	.287**	.398**	.367**	.565**	.547**	.635**	1.000						
TRU5	.226*	.286**	.149	.306**	.235*	.218*	.106	.308**	.542**	.331**	.537**	.534**	.461**	.523**	1.000					
TRU6	.117	.094	.047	.250*	.042	.038	.020	.076	.314**	.341**	.346**	.462**	.344**	.440**	.632**	1.000				
RIS1	-.016	.095	.093	.191	-.002	-.057	-.023	-.020	-.112	.273**	-.009	-.008	-.010	.036	-.088	-.032	1.000			
RIS2	-.066	.147	.113	.167	.015	-.092	.031	.045	-.102	.214*	.058	.045	.040	.097	-.113	-.094	.887**	1.000		
RIS3	-.069	.080	.180	.275**	-.044	-.048	-.022	.024	-.004	.237*	-.007	-.026	-.029	-.028	-.097	-.055	.719**	.689**	1.000	
RIS4	-.089	.189	.198*	.167	-.124	-.148	.002	.057	.034	.350**	.048	-.002	.029	.193	-.076	-.117	.451**	.536**	.452**	1.000

Appendix 10: Age and TRU6 Correlation



Appendix 11: Factor Analysis Correlation matrix

	REP1	REP2	REP3	REP4	WAR1	WAR2	WAR3	SEC1	SEC2	SEC3	SEC4	QOS1	QOS2	QOS3	QOS4	QOS5	QOS6
REP1	1.000																
REP2	.642	1.000															
REP3	.192	.122	1.000														
REP4	.344	.342	.221	1.000													
WAR1	.323	.337	.186	.186	1.000												
WAR2	.140	.171	.257	.221	.651	1.000											
WAR3	.041	.068	.437	.286	.390	.563	1.000										
SEC1	.251	.204	.034	.200	.445	.396	.291	1.000									
SEC2	.344	.371	.100	.364	.589	.343	.377	.623	1.000								
SEC3	.256	.360	.172	.253	.471	.333	.330	.653	.791	1.000							
SEC4	.424	.466	.158	.369	.474	.282	.287	.471	.747	.706	1.000						
QOS1	.470	.314	-.036	.207	.330	.299	.022	.298	.286	.204	.406	1.000					
QOS2	.003	.052	.189	.155	.209	.308	.369	.372	.232	.154	.203	.100	1.000				
QOS3	.048	.060	.140	.049	.303	.370	.393	.471	.362	.251	.265	.144	.787	1.000			
QOS4	.300	.253	.165	.196	.244	.219	.240	.335	.301	.277	.392	.402	.230	.295	1.000		
QOS5	.143	.183	.103	.283	.323	.312	.259	.372	.349	.298	.308	.314	.281	.321	.356	1.000	
QOS6	.020	.081	.065	.154	.253	.233	.234	.417	.312	.344	.260	.162	.218	.307	.306	.818	1.000
QOS7	.040	.060	.249	.190	.101	.052	.146	.188	.199	.180	.151	.020	.224	.200	-.008	.208	.267
QOS8	.282	.279	.088	.243	.150	.068	.148	.071	.278	.168	.371	.218	.084	.151	.211	.276	.190
QOS9	.265	.310	.112	.164	.174	.131	.214	.011	.246	.172	.356	.184	.076	.116	.176	.267	.181
QOS10	.300	.318	-.001	.247	.187	.112	.033	.070	.122	.095	.185	.146	.085	.130	.297	.210	.203
DOW1	.332	.260	-.046	.094	.207	.072	-.023	.257	.278	.306	.371	.434	-.028	.005	.355	.344	.287
DOW2	.209	.137	.061	.163	.203	.183	.046	.133	.159	.190	.260	.364	.111	.124	.258	.322	.328
DOW3	.097	.183	.232	.183	.124	.215	.217	.173	.121	.142	.147	.035	.287	.364	.177	.367	.418
TRU1	.368	.394	.108	.301	.403	.211	.197	.367	.443	.414	.516	.467	.284	.328	.445	.504	.435
TRU2	.366	.236	.031	.232	.313	.136	.108	.294	.356	.312	.327	.384	.099	.119	.487	.431	.322
TRU3	.434	.292	-.002	.149	.213	.038	-.025	.300	.384	.234	.379	.397	.040	.181	.411	.325	.300
TRU4	.218	.179	-.092	.156	.265	.195	-.056	.383	.306	.229	.276	.277	.129	.276	.253	.323	.289
TRU5	.277	.240	.060	.270	.177	.095	-.038	.145	.187	.138	.242	.406	.163	.161	.274	.312	.175
TRU6	.178	.114	.063	.249	.130	.119	-.025	.039	.142	.138	.175	.217	-.012	-.055	.133	.112	.061
RIS1	.005	.005	.350	.160	.182	.207	.123	.063	-.071	-.033	-.116	-.020	.107	.081	-.013	.104	.106
RIS2	.050	.042	.269	.146	.198	.163	.078	.153	-.043	.017	-.045	-.003	.070	.031	-.062	.150	.130
RIS3	-.011	-.127	.432	.124	.135	.126	.121	.094	-.017	.021	-.064	-.076	.059	-.005	-.098	.071	.161
RIS4	-.116	-.197	.082	-.031	.035	.182	.104	.262	-.085	.051	-.160	-.046	.086	.133	-.069	.171	.198

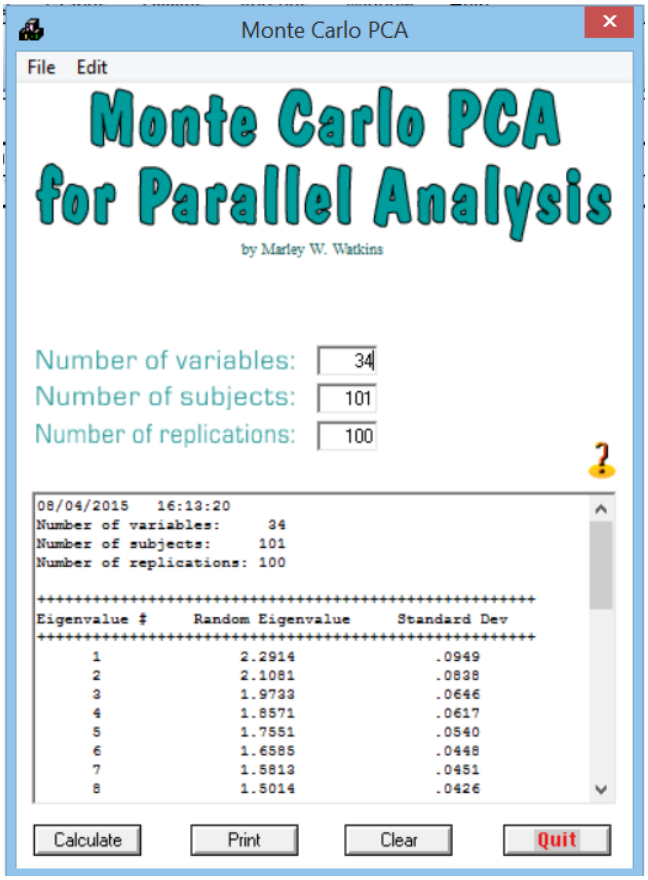
(Continued on the next page)

	QOS7	QOS8	QOS9	QOS10	DOW1	DOW2	DOW3	TRU1	TRU2	TRU3	TRU4	TRU5	TRU6	RIS1	RIS2	RIS3	RIS4
REP1																	
REP2																	
REP3																	
REP4																	
WAR1																	
WAR2																	
WAR3																	
SEC1																	
SEC2																	
SEC3																	
SEC4																	
QOS1																	
QOS2																	
QOS3																	
QOS4																	
QOS5																	
QOS6																	
QOS7	1.000																
QOS8	.393	1.000															
QOS9	.293	.893	1.000														
QOS10	-.004	.063	.167	1.000													
DOW1	.136	.245	.248	.351	1.000												
DOW2	.151	.202	.243	.352	.521	1.000											
DOW3	.262	.071	.119	.171	.138	.248	1.000										
TRU1	.149	.272	.272	.377	.484	.468	.397	1.000									
TRU2	.123	.284	.283	.302	.447	.429	.223	.759	1.000								
TRU3	.144	.271	.193	.180	.392	.307	.256	.585	.652	1.000							
TRU4	.220	.172	.122	.209	.285	.380	.405	.576	.562	.624	1.000						
TRU5	.328	.262	.241	.117	.316	.539	.345	.577	.574	.453	.501	1.000					
TRU6	.246	.043	.038	-.008	.112	.320	.355	.414	.502	.350	.444	.645	1.000				
RIS1	.194	.005	-.044	-.008	-.010	-.135	.279	.018	.034	.056	.087	-.068	-.015	1.000			
RIS2	.166	.013	-.076	.035	.057	-.120	.235	.083	.090	.086	.139	-.078	-.051	.892	1.000		
RIS3	.277	-.036	-.043	-.004	.023	-.006	.239	-.022	-.014	-.034	.006	-.095	-.051	.728	.697	1.000	
RIS4	.206	-.109	-.137	-.020	.050	.025	.365	.075	.045	.032	.220	-.051	-.056	.465	.548	.500	1.000

Appendix 12: Total variance explained table

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	8.797	25.873	25.873
2	3.768	11.082	36.955
3	2.781	8.180	45.135
4	2.129	6.262	51.397
5	1.889	5.557	56.955
6	1.572	4.623	61.578
7	1.444	4.248	65.826
8	1.202	3.537	69.362
9	1.102	3.240	72.602
10	.966	2.841	75.443
11	.928	2.729	78.171

Appendix 13: Parallel Analysis



Appendix 14: Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
Trust6	.847					
Trust5	.834					
Trust4	.707					
Trust2	.664				.311	
Trust3	.602			.344		
Trust1	.590			.346	.393	
Design of Website3	.410				.315	.369
Security and Privacy3		.868				
Security and Privacy2		.854				
Security and Privacy1		.726				.332
Security and Privacy4		.692		.348		
Risk2			.927			
Risk1			.903			
Risk3			.830			
Risk4			.699			
Reputation1				.750		
Reputation2				.728		
Quality of Service10				.584	.507	
Quality of Service4				.399	.341	
Quality of Service6		.307			.778	
Quality of Service5					.711	
Design of Website2	.480				.530	
Design of Website1				.310	.524	
Quality of Service3						.896
Quality of Service2						.862
Quality of Service8						
Quality of Service9						
Quality of Service7						
Warrenty2						
Warrenty1		.473				
Quality of Service1	.363			.368		
Reputation3			.305			
Reputation4				.369		
Warrenty3						.339

Extraction Method: Principal Component Analysis,

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 18 iterations.

Appendix 15: Factor titles

Factor	Code	Factor Interpretation	Factor Loading	Eigenvalue	Variance explained (%)
1		**Service Quality**		8.80	25.87%
	TRU 6	when I have heard good reviews about a product in blogs	0.85		
	TRU 5	when I have heard good reviews about a product in magazines	0.83		
	TRU 4	if I think this website operates in an ethical manner	0.70		
	TRU 2	the website keeps its promises regarding the offered delivery times	0.66		
	TRU 3	if I think I can trust the website	0.60		
	TRU 1	the website keeps its promises regarding quality of its products	0.59		
	DOW 2	if the website has an attractive, modern and professional design	0.48		
	DOW 3	when I am asked interactive questions about my specific needs	0.41		
	QOS 1	when the website provides detailed information about products offered	0.36		
2		**Website safety**		3.77	11.08%
	SEC 3	when I do not think my details are being used to be transferred to third parties	0.87		
	SEC 2	when I feel safe entering my personal information	0.85		
	SEC 1	if the website has a privacy policy regarding disclosure of customer information	0.73		
	SEC 4	when I feel secure about making an electronic payment on the website	0.69		
	WAR 1	if the website offers a clear returns policy	0.47		
3		**Intangibility**		2.78	8.18%
	RIS 2	that I have never smelt before	0.93		
	RIS 1	that I have never felt the texture of before	0.90		
	RIS 3	that I have never seen in the physical store before	0.83		
	RIS 4	due to the lack of personal interaction with sales assistant	0.70		
4		**Brand Reputation**		2.13	6.26%
	REP 1	if I am familiar with the brand	0.75		
	REP 2	if the brand has a good reputation	0.73		
	QOS 10	Convenience of purchasing skin care online is important to me	0.58		
	QOS 4	if the website offers delivery within 3-5 working days	0.40		
	REP 4	if the brand is from a website I have had positive previous experience with	0.37		
	QOS 1	when the website provides detailed information about products offered	0.37		
5		**Website interactivity**		1.90	5.56%
	QOS 6	if the website offers interactive features that make shopping enjoyable	0.78		
	QOS 5	if the website offers interactive features that make shopping easier	0.71		
	DOW 2	if the website has an attractive, modern and professional design	0.53		
	DOW 1	if the website makes browsing for products easy	0.52		
	QOS 10	Convenience of purchasing skin care online is important to me	0.51		
	QOS 4	if the website offers delivery within 3-5 working days	0.39		
6		**Shopping motivations**		1.57	4.62%

	QOS 3	if the website offers samples to try with my purchase	0.90		
	QOS 2	if the website offers a free gift with purchase	0.86		
	DOW 3	when I am asked interactive questions about my specific needs	0.37		

Appendix 16: Survey Information for participants/ Cover *letter*

Dear Participant,

You are being invited to take part in a research study. Before you decide whether to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

The purpose of this study is to identify the important determinants of consumers' online shopping behaviour of skin care.

The characteristics of participants needs to be that you have in the past or do purchase your skin care online on at least one occasion. From this research I am trying to ascertain the factors which influence a consumer to shop online and what the main risk factors of buying cosmetics online are.

What will I have to do if I take part?

If you choose to take part, you will need to complete the survey which will take a maximum of 15 minutes of your time.

What are the possible disadvantages or risks of taking part?

No potential risks

Do I have to take part?

You are under no obligation to participate in this study. If you do decide to take part, you are free to withdraw at any time without giving a reason. If you do not take part or withdraw from the study at a later date, it will not disadvantage you. Except in the case of partially completed, anonymous on-line questionnaires, all data related to your responses will also be safely destroyed unless you state otherwise. Submission of a partially completed or fully completed questionnaire implies consent to participate in the study and you will be unable to withdraw your data.

What will happen to the information?

Your participation in this study and all information collected will be kept strictly confidential in accordance with the Data Protection Act (1998). Unless otherwise indicated, all personal information and data collected will be coded and anonymised so that you cannot be recognised from it. The collected data will be securely stored on a password protected computer and safely disposed of once the project/dissertation has been completed.

The results of this study will be reported as part of my degree programme and may be further disseminated for scientific benefit. The results will be available to you on request.

Who should I contact for further information or if I have any problems/concerns?

TO WITHDRAW CONSENT PLEASE EMAIL AMELIA DI PALMA WITH YOUR UNIQUE ID NUMBER.

Amelia di Palma
u1344627@uel.ac.uk

Ayantunji Gbadamosi
gbadamosi@uel.ac.uk

If you have any queries regarding the conduct of the programme in which you are being asked to participate, please contact:

Catherine Fieulleteau, Ethics Integrity Manager, Graduate School, EB 1.43

University of East London, Docklands Campus, London E16 2RD

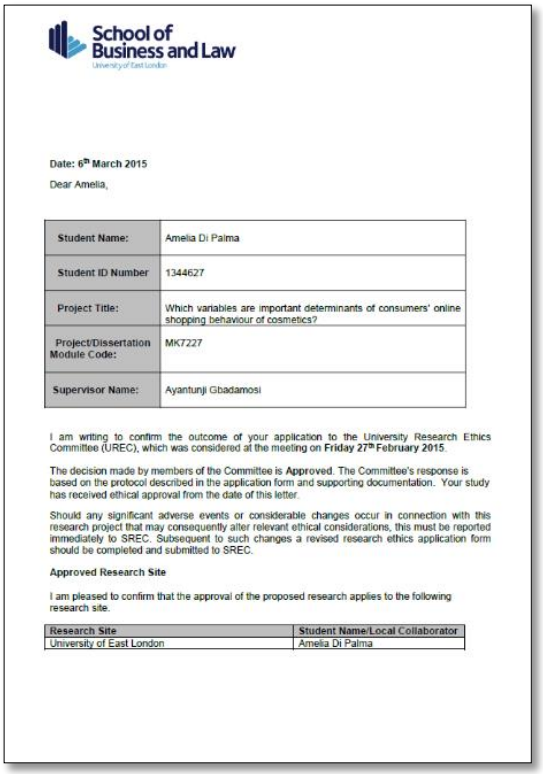
(Telephone: 020 8223 6683, Email: researchethics@uel.ac.uk)

1. Unique ID code

Unique ID code Last letter of first name, last letter of last name and your month of birthday in numbers. EG. Amelia di Palma, May = AA05

.....

Appendix 17: Application of approved ethics



School of Business and Law
University of East London

Date: 6th March 2015

Dear Amelia,

Student Name:	Amelia Di Palma
Student ID Number	1344627
Project Title:	Which variables are important determinants of consumers' online shopping behaviour of cosmetics?
Project/Dissertation Module Code:	MK7227
Supervisor Name:	Ayantunji Gbadamosi

I am writing to confirm the outcome of your application to the University Research Ethics Committee (UREC), which was considered at the meeting on **Friday 27th February 2015**.

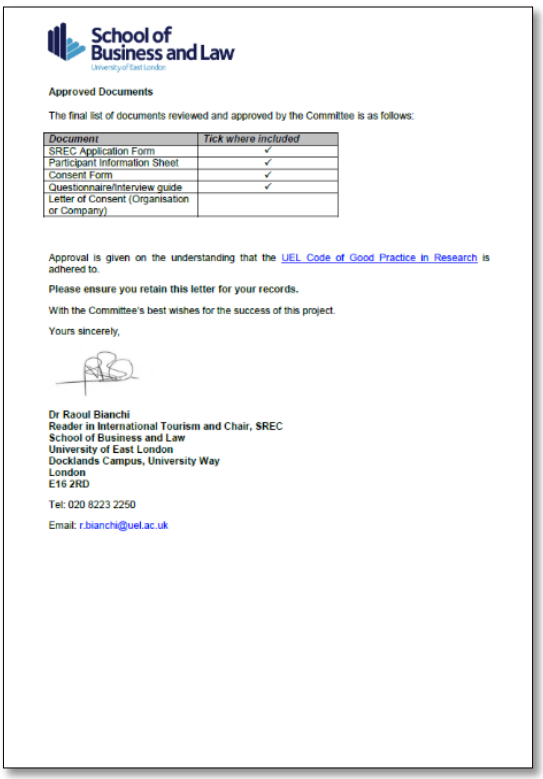
The decision made by members of the Committee is **Approved**. The Committee's response is based on the protocol described in the application form and supporting documentation. Your study has received ethical approval from the date of this letter.

Should any significant adverse events or considerable changes occur in connection with this research project that may consequently alter relevant ethical considerations, this must be reported immediately to SREC. Subsequent to such changes a revised research ethics application form should be completed and submitted to SREC.

Approved Research Site

I am pleased to confirm that the approval of the proposed research applies to the following research site.

Research Site	Student Name/Local Collaborator
University of East London	Amelia Di Palma



School of Business and Law
University of East London

Approved Documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Tick where included*
SREC Application Form	✓
Participant Information Sheet	✓
Consent Form	✓
Questionnaire/interview guide	✓
Letter of Consent (Organisation or Company)	

Approval is given on the understanding that the UEL Code of Good Practice in Research is adhered to.

Please ensure you retain this letter for your records.

With the Committee's best wishes for the success of this project.

Yours sincerely,

Dr Raoul Bianchi
Reader in International Tourism and Chair, SREC
School of Business and Law
University of East London
Docklands Campus, University Way
London
E16 2RD

Tel: 020 8223 2250

Email: r.bianchi@uel.ac.uk